

# THE FORM OF DIAGNOSTIC LABORATORIES IMPACT ON MARKETING PRACTICES

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## ABSTRACT

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The increased customer's awareness, customers self-testing, increase in the population across the globe and also the advancement in the technology are the prime factors which are driving the growth of the in vitro diagnostic market. The rise in the number of complexity in the infections like respiratory infections, hospital acquired infections, etc. are also the other major drivers for the growth of the In-vitro diagnostic industry. Similarly, rise in chronic diseases such as diabetes, hypertension, cardiovascular diseases, and cancer are driving the overall In Vitro Diagnostic market. Unorganized local players so far had dominated India's diagnostic segment but there are no doubts that few organized players like Roche Diagnostics, Abbott, Tulip Group, Span Diagnostics, Metropolis, SRL Ranbaxy etc. had also made their presence felt in this domain. The growth in the diagnostic sector is witnessed due to the few factors like advancement in the diagnostic procedures, faster turnaround time also increased availability of over-the-counter (OTC) tests by which clients can perform in the comfort and convenience at their homes. The Indian pathology business is around 10,000 crore in that Organized sector business is around 1,000 crore only from the few top laboratories (Bursk (1944), David (2001)). The diagnostic industry is now price-driven, there are certain kickbacks and demand of business referral payments in the absence of a regulatory body had made this industry very much competitive in nature.

**Keywords:** Marketing Practices, Strategy, Diagnostic, Owned, Chain, Hospital

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## INTRODUCTION

Indian diagnostics players are too smartly putting their foot forward to meet the demand as around 70 percent (Chiraca, 2013) of the treatment decisions of medical practitioner in the country are based on laboratory results. In the overseas territories like Asia, Middle East, United States etc. they have expanded their presence. The spectrum of test menu is also expanded by the diagnostic industry had increased by expanding in the different areas like Oncology, Microbiology, Biochemistry, and Molecular Diagnostics. India's diagnostic segment maximum market share is captured by the unorganised local players but now it is competed by few organised players like Metropolis, Dr. Lal's Pathology, Piramal Diagnostics, Thyrocare, Roche Diagnostics, Abbott, Transasia Biomedical & Span

Diagnostics, etc. The Indian diagnostics market is growing by about 20 percent [(Burnelt (2008))] which is faster than any country in the world as per the industry experts. The organised segment had now explored the opportunities of expansion and capitalizing the market share by penetrating in the suburban and rural areas and also mergers and acquisitions can be opted as a route of expansion. They had come up with various business models to penetrate not only in suburban, but also in the town and remote areas. The growth in the diagnostic sector is witnessed due to the few factors like advancement in the diagnostic procedures, faster turnaround time, also increased availability of over-the-counter (OTC) tests by which clients can perform in the comfort and convenience at their homes. Recently the IVD market is shifting gradually towards semi-automated and fully-automated

laboratory instrument. The Indian pathology business is around 10,000 crore in that Organized sector business is around 1,000 crore (Bursk, 1944) only from the few top laboratories. The diagnostic industry is now price-driven, there are certain kickbacks and demand for business referral payments in the absence of a regulatory body had made this industry very much competitive in nature.

## OBJECTIVES OF THE STUDY

1. To find whether the form of organization (Chain, Owned, and Hospital) has a significant impact on marketing practices in diagnostic laboratories.
2. To study the marketing strategies impact on marketing practices in diagnostic laboratories.

## LITERATURE REVIEW

Kjellberg et al (2007) had defined market practice as “all activities that contribute to constituting markets” and the interrelated practices that create markets were identified that are normalizing, representational and exchange practices. They found that health care market is based on mainly normalizing and exchange practices. Nariswari Angeline (2011) in their conceptual paper has explored the model by focusing on market practices as the unit of analysis. A model was developed for understanding markets by integrating the disparate but compatible views that are the institutional theory, the practice based approach to markets, and service dominant logic.

The practice based approach identified the key practices that constitute markets while service-dominant logic situates these market practices within the context of resource integration and value co-creation. Additionally, institutional theory also explains the institutionalization of market practices, thereby setting up the rules for value co-creation amongst market actors. Markets, though often seemingly chaotic or complex in form, can be broken down into fractal pieces that consist of a simple set of practices. It is expected that one can study multiple levels of markets and the interactivity between them by using practices as the underlying unit of analysis

by identifying key practices and translation as the link between practices. Rizwan Raheem Ahmed et al (2014) studied that the development of effective communication mix in pharmaceutical marketing is a complex task, which goes through identifying the target audience, determining the communication objectives, designing a message, choosing method of delivery, collecting feedback. Pharmaceutical marketing professionals are fast becoming aware of the latest development in the discipline of marketing, and they have also started to adopt latest theories in communications. Abdul Rahim et al (2015) had explored the role of marketing practices in SMEs and evaluated the impact on SME performance through changes in marketing practices from traditional to entrepreneurial marketing practices. Marketing in SMEs is centered on traditional methods such as using print media and selling. Izvercianu Monica et al (2015) analyzed the marketing practices embraced by small and medium scale enterprises (SME) managers to fulfill their organization objectives in terms of profit. The study was based on literature review, structured interviews, and quantitative research; a sample consisting of Maltese SMEs was used to acquire a broad image of the marketing practices used within SME type organizations.

## RESEARCH METHODOLOGY

- The research aims to study the marketing practices taken into account by Diagnostic Laboratories for their customers or increase in the market share. It was exploratory in nature because it measured the different marketing practices carried over by Diagnostic Laboratories for their customers or increase in the market share.
- The primary data for the study was collected from the sample of diagnostic laboratories.
- Secondary data was gathered mainly from research articles, books on marketing management, magazines, dissertations and other publications from conference proceedings.
- The formal instrument in form of the questionnaire was developed to study the

marketing practices of Diagnostic Laboratories and different problems associated with them.

- The researcher has used target population in form of owned, chain & hospital diagnostic laboratories.
- The sampling method adopted for the study was Purposive Non-Probability Sampling.
- The sample size is 177 consisting of Owned, Hospital and Chain Diagnostic Laboratories.
- Statistical tests used for hypothesis testing are ANOVA (Analysis of Variances) and Non Parametric - Kendall's W Test.

## DISCUSSION OF RESULTS

The following table No.1 shows a comparative picture of three types of organization (Owned, Hospital & Chain Diagnostic Laboratories) vis-a-vis, the seven P's and strategy score as compiled by the researcher.

**Table 1 : Comparative Data of 7P's Verses Strategy**

Average Score	Owned	Hospital	Chain
Product	3.12	3.08	4.16
Price	3.15	3.03	3.59
Place	3.04	3.12	4.00
Promotion	3.11	3.09	3.91
People	3.09	3.22	4.43
Physical Evidence	3.15	3.08	4.29
Process	3.13	3.11	3.86
Positioning	3.07	3.15	4.17
Relationship	3.21	3.16	4.02
Marketing Strategy	3.01	3.05	3.99

Source: Field Survey, 2016

The mean is just above 3.00 (on a 5 point Likert scale from 1 to 5) which shows that the marketing practices are present for chain diagnostic laboratories, while for owned and hospital diagnostic laboratories they are hardly present for all P's of Marketing.

### Hypothesis 1

In diagnostic laboratories marketing strategies have no significant impact on marketing practices.

### Testing of The Hypothesis

Using ANOVA and using strategy as a constant the F value of all the 7 P's (Product, Price, Place, Promotion, People, Process & Physical Evidence) is found to be insignificant hence the hypothesis is proved.

**Table 2 : Analysis of Variances (ANOVA) Test Measures of Association**

	R	R Squared	Eta	Eta Squared
Product*Strategy	.194	.038	.533	.284
Pricing*Strategy	.216	.047	.413	.170
Distribution*Strategy	.200	.040	.450	.202
Promotion*Strategy	.289	.083	.519	.270
People*Strategy	.251	.063	.456	.208
Physicalevi*Strategy	.184	.034	.429	.184
Process*Strategy	.193	.037	.448	.201
Position*Strategy	.232	.054	.467	.219
Relationship*Strategy	.183	.033	.451	.203

Source : Field Survey, 2016

**Table 3 : Anova Table**

			Sum of Squares	df	Mean Square	F	Sig.
Product * Strategy	Between Groups	(Combined)	17.056	26	.656	2.285	.001
		Linearity	2.255	1	2.255	7.856	.006
		Deviation from Linearity	14.801	25	.592	2.062	.004
	Within Groups		43.063	150	.287		
	Total		60.120	176			
Pricing * Strategy	Between Groups	(Combined)	5.999	26	.231	1.184	.261
		Linearity	1.641	1	1.641	8.419	.004
		Deviation from Linearity	4.358	25	.174	.894	.613
	Within Groups		29.237	150	.195		
	Total		35.237	176			
Distribution * Strategy	Between Groups	(Combined)	13.633	26	.524	1.461	.083
		Linearity	2.704	1	2.704	7.536	.007
		Deviation from Linearity	10.929	25	.437	1.218	.232
	Within Groups		53.830	150	.359		
	Total		67.463	176			
Promotion * Strategy	Between Groups	(Combined)	7.657	26	.295	2.132	.003
		Linearity	2.366	1	2.366	17.133	.000
		Deviation from Linearity	5.291	25	.212	1.532	.062
	Within Groups		20.717	150	.138		
	Total		28.374	176			
People * Strategy	Between Groups	(Combined)	14.950	26	.575	1.512	.066
		Linearity	4.524	1	4.524	11.897	.001
		Deviation from Linearity	10.426	25	.417	1.097	.353
	Within Groups		57.040	150	.380		
	Total		71.991	176			
Physicalevi * Strategy	Between Groups	(Combined)	18.676	26	.718	1.301	.166
		Linearity	3.452	1	3.452	6.251	.013
		Deviation from Linearity	15.224	25	.609	1.103	.346
	Within Groups		82.844	150	.552		
	Total		101.520	176			
Process * Strategy	Between Groups	(Combined)	7.078	26	.272	1.451	.087
		Linearity	1.309	1	1.309	6.975	.009
		Deviation from Linearity	5.769	25	.231	1.230	.223
	Within Groups		28.150	150	.188		
	Total		35.228	176			
Position * Strategy	Between Groups	(Combined)	10.931	26	.420	1.613	.040
		Linearity	2.697	1	2.697	10.348	.002
		Deviation from Linearity	8.234	25	.329	1.264	.196
	Within Groups		39.093	150	.261		
	Total		50.024	176			
Relationship * Strategy	Between Groups	(Combined)	15.377	26	.591	1.471	.080
		Linearity	2.534	1	2.534	6.303	.013
		Deviation from Linearity	12.843	25	.514	1.278	.185
	Within Groups		60.310	150	.402		
	Total		75.688	176			

Source: Field Survey, 2016

As strategy is taken as an independent variable and compared with different P's of marketing, the F value suggest that there is a statistical difference between all P's and strategy.

However it is not, significant difference in case of Pricing, Distribution (Place), People, Physical Evidence, Process, and Relationship. Thus, out of different P's six P's show insignificant difference hence the hypothesis is proved.

### Hypothesis 2

In diagnostic laboratories, the form of organization (Chain, Owned, and Hospital) has a significant impact on marketing practices.

### TESTING OF THE HYPOTHESIS

As has been elaborated earlier the respondent's form of organization (Chain, Owned, and Hospital) has been compared by using non- parametric Kendall's W test it is found that the marketing practices of chain diagnostic laboratories are significantly better than owned and hospital diagnostic laboratories.

Thus the form of organization has a significant impact on marketing practices has been proved.

**Table 4 : Non Parametric Tests - Kendall's W Test**

Ranks	
Type	Mean Rank
Owned	1.60
Hospital	1.40
Chain	3.00

Test Statistics	
N	10
Kendall's W <sup>a</sup>	.760
Chi-Square	15.200
Df	2
Asymp. Sig.	.001
Kendall's Coefficient of Concordance	

Source: Field Survey, 2016

## CONCLUSIONS

Except for chain diagnostic laboratories the respondent's appeared to be a little above neutral in case of all marketing practices. This suggests the apparent apathy of diagnostic laboratories towards marketing practices. The form of organization has a significant impact on marketing practices of diagnostic laboratories.

## IMPLICATIONS

The form of organization - and not the strategy of the organization - has a significant impact on marketing practices resulting out of seven P's of marketing. The concept of marketing strategy appears to be less relevant than marketing principles and policies, especially in the context of the healthcare sector.

## LIMITATIONS

The study may not be representing the entire country as diagnostic laboratories have been picked from Pune city. Still, the researcher is of the opinion that healthcare is the kind of industry wherein fundamentals are not changing with the place. Since most of the studies pertaining to the problem in hand have been carried out in foreign countries, literature reviewed has mentioned most of such studies. Such a literature automatically creeps in the work of the researcher also.

## FUTURE RESEARCH DIRECTIONS

The present research has made an endeavor to assess marketing practices of diagnostic laboratories of Pune City. Less constrained researchers may compare and contrast marketing practices of Indian Diagnostic Laboratories with those of such Diagnostic Laboratories situated across other countries. Obviously, this may help us in knowing where the Indian Diagnostic Laboratories stand in comparison to their global counterparts.

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