

An Empirical Study of Dealers' Perspective on the Marketing Mix for Laboratory Services

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Abstract: This paper extends an empirical investigation of dealers' perceptions of the 7P marketing mix for clinical laboratory services. Dealers are important observers of diagnostic markets because they interact with laboratories, pathologists and technicians through the sale of kits, reagents, instruments and support services. The study uses a census-oriented dealer survey in Pune city. Of thirty-two identified dealers, twenty-eight participated, producing an effective response rate of 87.50 percent. After item judgment, thirty-nine statements were retained under product/service, price, place, promotion, people, physical evidence and process. The analysis applies weighted averages, favorable response shares, unfavorable response shares, attribute-level comparisons and Kolmogorov-Smirnov hypothesis decisions. Findings show strong dealer agreement on prompt laboratory service, cash-based patient payment, collection-center expansion, public relations activity, technician dependence, communication facilities, report confidentiality and result checking. Weaknesses appear in complaint reception, skilled technician availability, employee hygiene, pre-test counseling and patient query resolution. The paper argues that laboratory service marketing is strongest where operational discipline and market reach are visible, but weaker where patient voice, ethical promotion and people capability are required. The study contributes a dealer-based view of diagnostic service marketing and offers practical directions for improving trust, transparency and service consistency.

Keywords: dealers; laboratory services; service marketing; 7P marketing mix; diagnostic services; healthcare marketing

1. Introduction

Healthcare localization is based on reports generated from clinical laboratory services which are used for diagnosis, treatment monitoring and preventive screening (Divya et al., 2026). The most visible output is the final report but the service includes specimen collection, registration processes, test analysis and validation, use of reagents and management of confidentiality and communication with both doctors and patients. So, selling lab services is not just cold calling or advertising to physicians (Gupta et al., 2025). It's in the experience of the end-to-end service. In speed, accuracy, access and price. In staff demeanor, cleanliness and reliability of process (Johri et al., 2026). The demand for laboratory services differs from more standard consumer services in that it is mediated by doctors, hospitals, clinics and institutional contracts. Patients want convenience and price, but often go to the lab the doctor orders them to. This leads to the service market where trust, impact of referral and professional reputation matters: That said, laboratories need to compete, but they also operate in a fragile health care context where poor quality, opaque prices or shady referrals can compromise patient welfare (Johri et al., 2025). Thus, the effective marketing strategy has to find a balance between the pressure to compete and the need for transparency and accountability. This study is guided by the extended 7P marketing mix. Even product / service line is testing range, response speed, reception quality & device readiness. Price includes dealer credit, patient charges, purchase price and bulk discount (Kalebar et al., 2025). Emphasis on Collection centers, Home Sample collection and Doctor directed access. Technicians, Pathologists and Behaviour of staff. Physical evidence includes visible infrastructure, hygiene and the display of different information and communication facilities (Kamat et al., 2025). The dealer perspective is important because the dealer has a semi-external but knowledgeable view of the laboratory (Kaur et al., 2026). They know

how pathologists buy kits, how labs negotiate credit, whether machines are upgraded, whether price is a factor and that labs compete in local markets (Mishra et al., 2026). While they are not front-line caregivers, their continuous engagement with diagnostic providers exposes them to aspects of commercial and operational practices and promotional tactics. Table 1: Research design and construct coverage in full analysis (Mitra & Verma, 2016).

Table 1. Survey design, response profile and construct coverage

Survey element	Numerical value	Analytical meaning
Dealers identified	32	Effective dealer universe in Pune city
Participating dealers	28	Usable responses for analysis
Response rate	87.50%	Participation relative to identified universe
Initial statements	64	Original item pool
Retained statements	39	Items retained after judgment
Marketing-mix dimensions	7	Product/service, price, place, promotion, people, physical evidence and process
Hypotheses tested	4	K-S D value compared with critical value
Likert scale	5 to 1	Higher value indicates stronger favorable perception

2. Research Objectives and Methodology

The present study has three related objectives: 1. to examine the 7P marketing mix for laboratory services, 2. to measure dealer's perceptions of individual items within each dimension and 3. to identify those gaps that are statistically significant ($p < 0.05$) as well as managerially meaningful (2SD above or below mean) (Peswani et al., 2026). The research design is descriptive in nature as it profiles the responses of dealers and diagnostic in nature as it identifies the areas for improvement. It is not a designed, large sample probability survey but rather uses a census ideal as only thirty-two dealers were identified. Twenty-eight dealers agreed to take part (Rajashri et al., 2025).

The retained statement responses were measured on a five-point scale. The Weighted Average Scores were calculated by multiplying the total Responses for each category by the category value and dividing by the total number of responses (Chawla et al., 2026). Scores toward five represent a more positive perception. The favorable response share is a combination of 5 and 4, neutral share is category 3, and unfavorable response share is a combination of 2 both and category. This approach provides more information than just ranking, indicating whether an item is highly accepted, disputed, or neutral (Chaturvedi et al., 2026) (Saraswat & Verma, 2020).

Investigator hypothesized that null hypotheses were tested at alpha 0.05 and the Kolmogorov-Smirnov D statistic results were compared to a critical value of 0.257 for four total null hypothesis tests performed on October 2023 data. The issues tested were complaint receipt, kit purchase price consciousness, referral commission practice, and price reasonableness. This study should be considered the views of dealers and not an audit of labs. But the end result is valuable, as dealers move in and out of supply and relationship networks at laboratories (Srivastava et al., 2025).

3. Results and Discussion

This study should be considered the views of dealers and not an audit of labs. But the end result is valuable, as dealers move in and out of supply and relationship networks at laboratories (Chawla et al., 2024).

Table 2. Product/service and price response profile

Attribute	Code	Item	WA	Favorable n (%)	Neutral n (%)	Unfavorable n (%)
Product/service	P1	Quality-conscious kit purchase	3.29	16 (57.1%)	4 (14.3%)	8 (28.6%)
Product/service	P2	Prompt laboratory service	3.96	20 (71.4%)	4 (14.3%)	4 (14.3%)
Product/service	P3	Latest equipment	3.75	18 (64.3%)	5 (17.9%)	5 (17.9%)
Product/service	P4	Good reception service	3.39	15 (53.6%)	7 (25.0%)	6 (21.4%)
Product/service	P5	Regular AMC	3.54	17 (60.7%)	6 (21.4%)	5 (17.9%)
Product/service	P6	Wide test range	3.71	18 (64.3%)	4 (14.3%)	6 (21.4%)
Product/service	P7	Complaint reception	2.75	12 (42.9%)	3 (10.7%)	13 (46.4%)
Price	PR1	Bulk-purchase discounts	4.00	22 (78.6%)	3 (10.7%)	3 (10.7%)
Price	PR2	Price-conscious pathologists	3.79	21 (75.0%)	3 (10.7%)	4 (14.3%)
Price	PR3	Cash basis for patients	4.29	25 (89.3%)	1 (3.6%)	2 (7.1%)
Price	PR4	Differential pricing	3.46	17 (60.7%)	4 (14.3%)	7 (25.0%)
Price	PR5	Dealer credit facility	3.89	21 (75.0%)	2 (7.1%)	5 (17.9%)
Price	PR6	Price variation across labs	3.82	20 (71.4%)	3 (10.7%)	5 (17.9%)
Price	PR7	Reasonable charges	3.14	14 (48.3%)	5 (17.2%)	10 (34.5%)

Figure 1 shows the weighted-average shift along statement positions for all 7P attributes. The multi-line trend has seen highest peaks for cash pay, anonymity / proper channels of communication and speed followed by lower visible troughs related to complaint handling, employee hygiene practices, counselling & query resolution (Verma, 2019). The same pattern is confirmed in figure 2 by the intensity of positive responses confirming that confidence intervals are highest around operational discipline and market reach versus patient participation. Figure 1 shows the weighted-average profile of all seven marketing-mix attributes, as well as the uneven movement of item-level perceptions (Chawla et al., 2025).

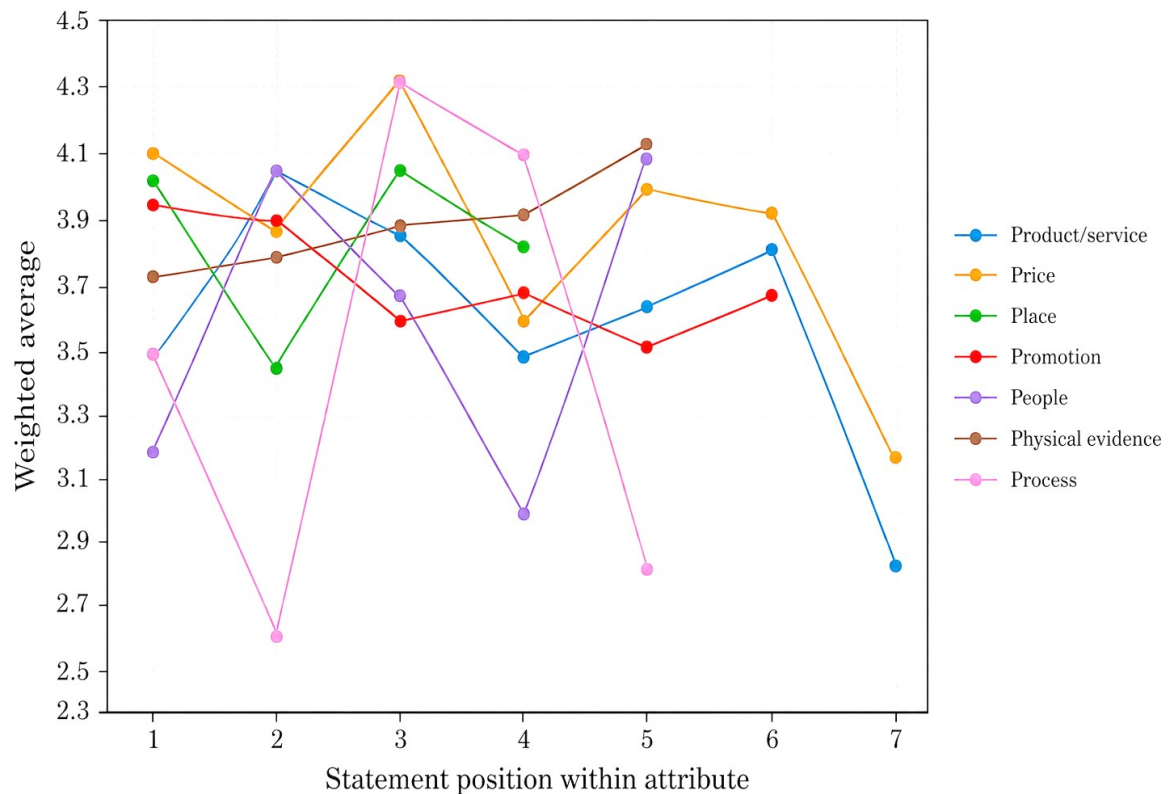


Figure 1. Weighted-average profile of 7P laboratory service marketing attributes

Figure 2 presents favorable response intensity, showing the percentage of dealers selecting the two highest response categories for each statement (Das et al., 2025) (Verma, 2022a)

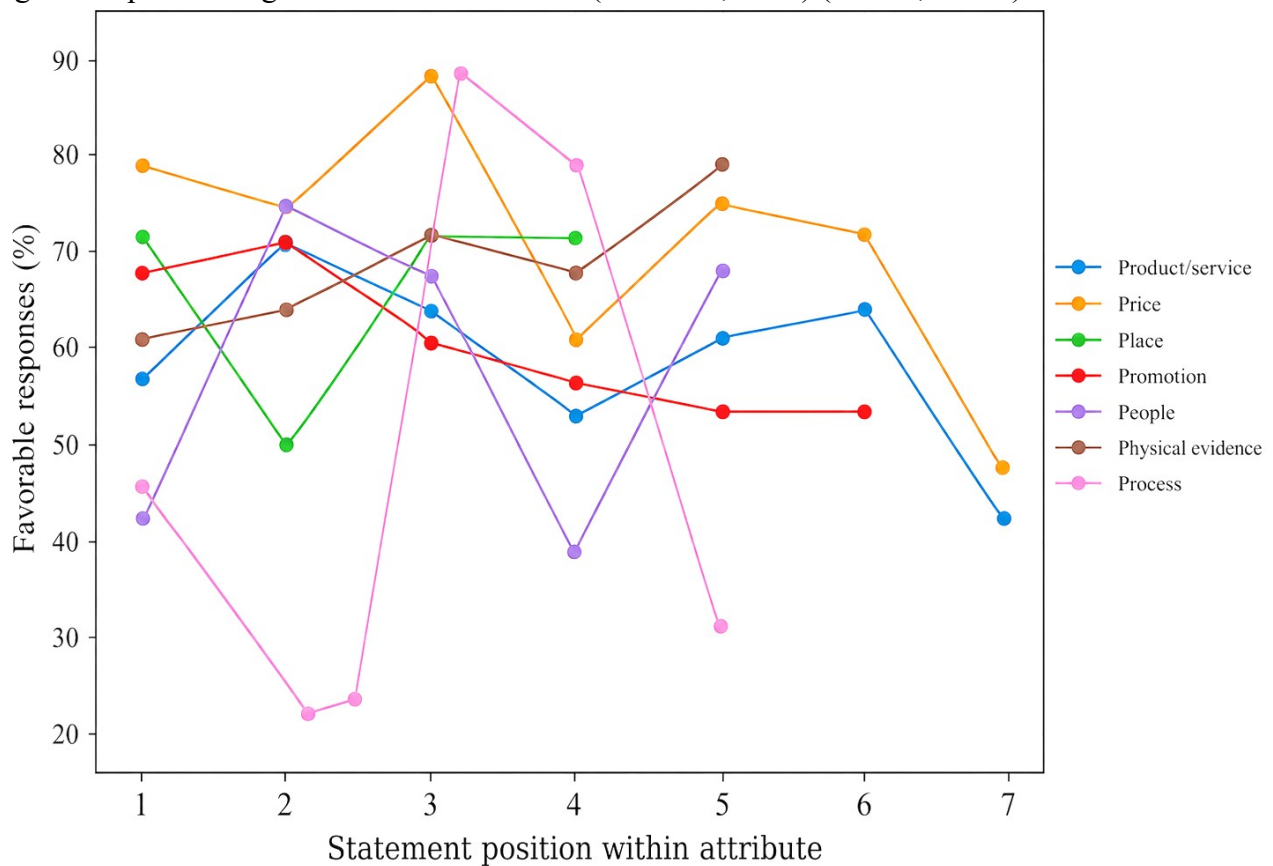


Figure 2. Favorable response intensity across 7P statements

3.2 Place, promotion and people

The place dimension describes spatial expansion of laboratories as a market strategy. Table 3 shows that collection centers and multiple laboratories are highest at 3.93 each. Physician directed lab visits score 3.75, indicating physician driven patient flows are still an important factor. Home collection is positive but weaker at 3.32 (Verma, 2022b). There is an opportunity for bettering service at the doorstep along with appointment coordination and sample logistics for patients who are elderly, infants or mobility-constrained. Promotion is praised, on balance, but exposes an ethical rub. 3. Role of Public Relations Officer. Report 86. and the referral commission report is 3.82. Health camps, senior discounts and institutional tie-ups are examples of how laboratories have used a combination of relationship-based and community-facing promotion (Verma & Chawla, 2024). The study is worried that the commercial incentives for commission led referral practices could undermine patient confidence in the system by inadvertently influencing test routing. Simply put, sustainable laboratory marketing means relying more on credibility (brand reputation), transparent pricing structures, quality assurance and responsiveness to service calls (Verma & Kumar, 2021a). The people dimension is a mixed. Dealer Response: There was a very strong consensus that pathologists rely on techs to do routine testing and do not discriminate against patients differently by lab. But they rate poorly on presence of trained technicians and hygiene of employees (Verma & Kumar, 2021b). This is a high service risk due to high dependency of laboratories to technicians for specimen loading, machine operation and routine testing. So, people capability is not just an HR issue, it is literally a marketing quality issue (Verma & Nagpal, 2021).

Table 3. Place, promotion and people response profile

Attribute	Code	Item	WA	Favorable n (%)	Neutral n (%)	Unfavorable n (%)
Place	PL1	Collection centers	3.93	20 (71.4%)	3 (10.7%)	5 (17.9%)
Place	PL2	Home collection	3.32	14 (50.0%)	7 (25.0%)	7 (25.0%)
Place	PL3	Multiple laboratories	3.93	20 (71.4%)	3 (10.7%)	5 (17.9%)
Place	PL4	Doctor-directed visits	3.75	20 (71.4%)	2 (7.1%)	6 (21.4%)
Promotion	PM1	PRO role	3.86	19 (67.9%)	4 (14.3%)	5 (17.9%)
Promotion	PM2	Referral commissions	3.82	20 (71.4%)	2 (7.1%)	6 (21.4%)
Promotion	PM3	Senior discounts	3.50	17 (60.7%)	4 (14.3%)	7 (25.0%)
Promotion	PM4	Hospital/clinic tie-ups	3.57	16 (57.1%)	6 (21.4%)	6 (21.4%)
Promotion	PM5	Corporate tie-ups	3.43	15 (53.6%)	6 (21.4%)	7 (25.0%)
Promotion	PM6	Health camps	3.57	15 (53.6%)	5 (17.9%)	8 (28.6%)
People	PE1	Qualified technicians	3.04	12 (42.9%)	6 (21.4%)	10 (35.7%)
People	PE2	Equal patient treatment	3.96	21 (75.0%)	3 (10.7%)	4 (14.3%)
People	PE3	Polite technicians	3.57	19 (67.9%)	2 (7.1%)	7 (25.0%)
People	PE4	Employee hygiene	2.89	11 (39.3%)	4 (14.3%)	13 (46.4%)
People	PE5	Technician	4.00	19 (67.9%)	6 (21.4%)	3 (10.7%)

Attribute	Code	Item	WA	Favorable n (%)	Neutral n (%)	Unfavorable n (%)
		dependence				

3.3 Physical evidence and process

This clearly reduces the uncertainty of intangibility in a diagnostic service. As shown in Table 4, the scores are consistently high for communication facilities, cleanliness of premises and displayed information (Verma & Sharma, 2022). These cues are easily perceived and enable the patient and the referring physician to evaluate laboratory seriousness long before quality can be measured by technical means. Thus, an organized front desk, adequate information signs, and reliable communication channels can build confidence when patients are anxious or unfamiliar with diagnostic processes (Verma & Vemuri, 2022).

Table 4. Physical evidence and process response profile

Attribute	Code	Item	WA	Favorable n (%)	Neutral n (%)	Unfavorable n (%)
Physical evidence	PH1	Infrastructure	3.61	17 (60.7%)	4 (14.3%)	7 (25.0%)
Physical evidence	PH2	Drinking water	3.68	18 (64.3%)	5 (17.9%)	5 (17.9%)
Physical evidence	PH3	Displayed information	3.79	20 (71.4%)	4 (14.3%)	4 (14.3%)
Physical evidence	PH4	Clean premises	3.82	19 (67.9%)	6 (21.4%)	3 (10.7%)
Physical evidence	PH5	Communication facilities	4.04	22 (78.6%)	5 (17.9%)	1 (3.6%)
Process	PC1	SOPs followed	3.29	13 (46.4%)	7 (25.0%)	8 (28.6%)
Process	PC2	Pre-test counseling	2.50	7 (25.0%)	4 (14.3%)	17 (60.7%)
Process	PC3	Report confidentiality	4.29	25 (89.3%)	2 (7.1%)	1 (3.6%)
Process	PC4	Result checking	4.04	22 (78.6%)	1 (3.6%)	5 (17.9%)
Process	PC5	Query resolution	2.71	9 (32.1%)	5 (17.9%)	14 (50.0%)

Figure 3: Sentiment profile of responses for each of the 7P attributes.

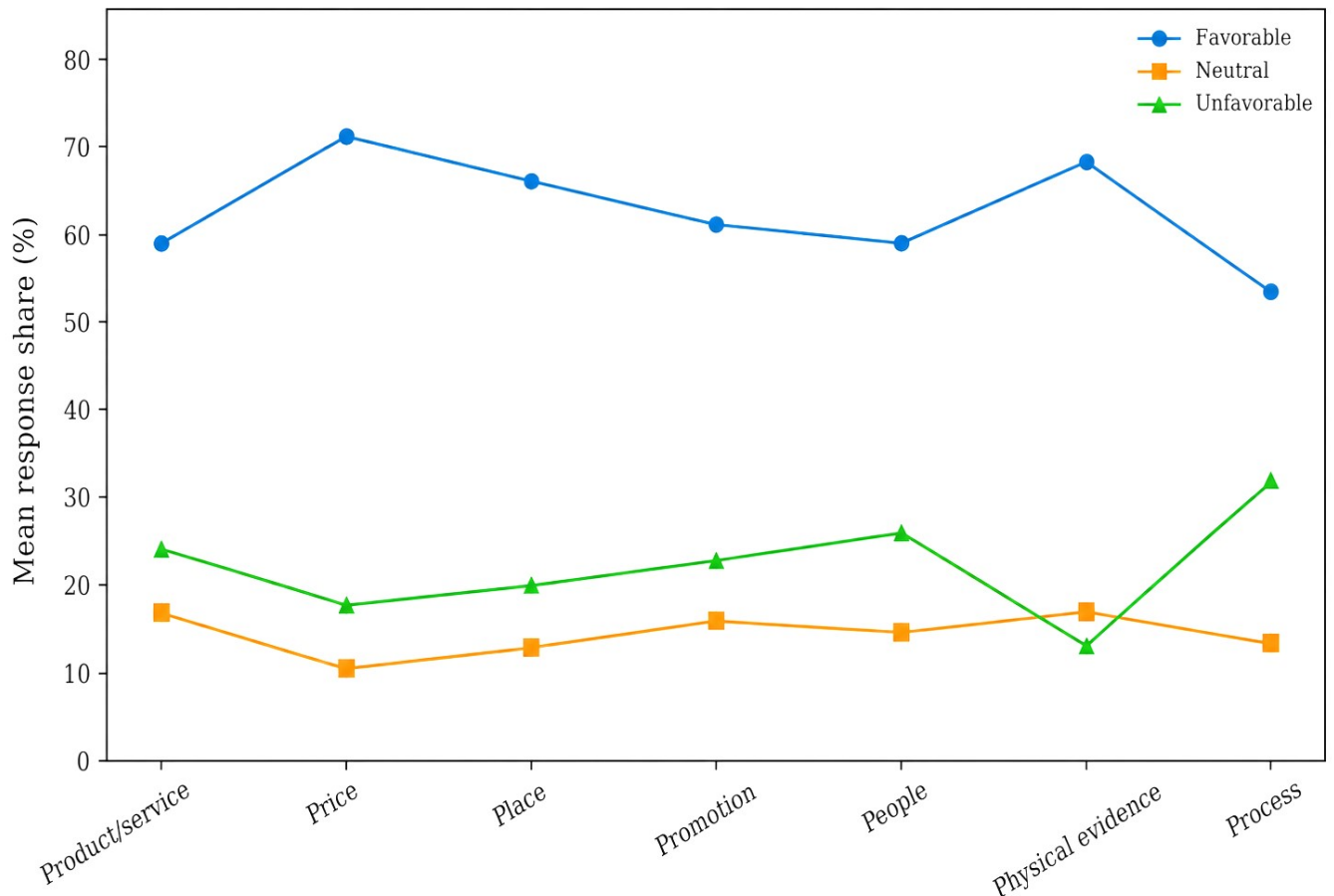


Figure 3. Dealer sentiment distribution by 7P attribute

Figure 4 displays the difference between the strongest, average and weakest item within every attribute.

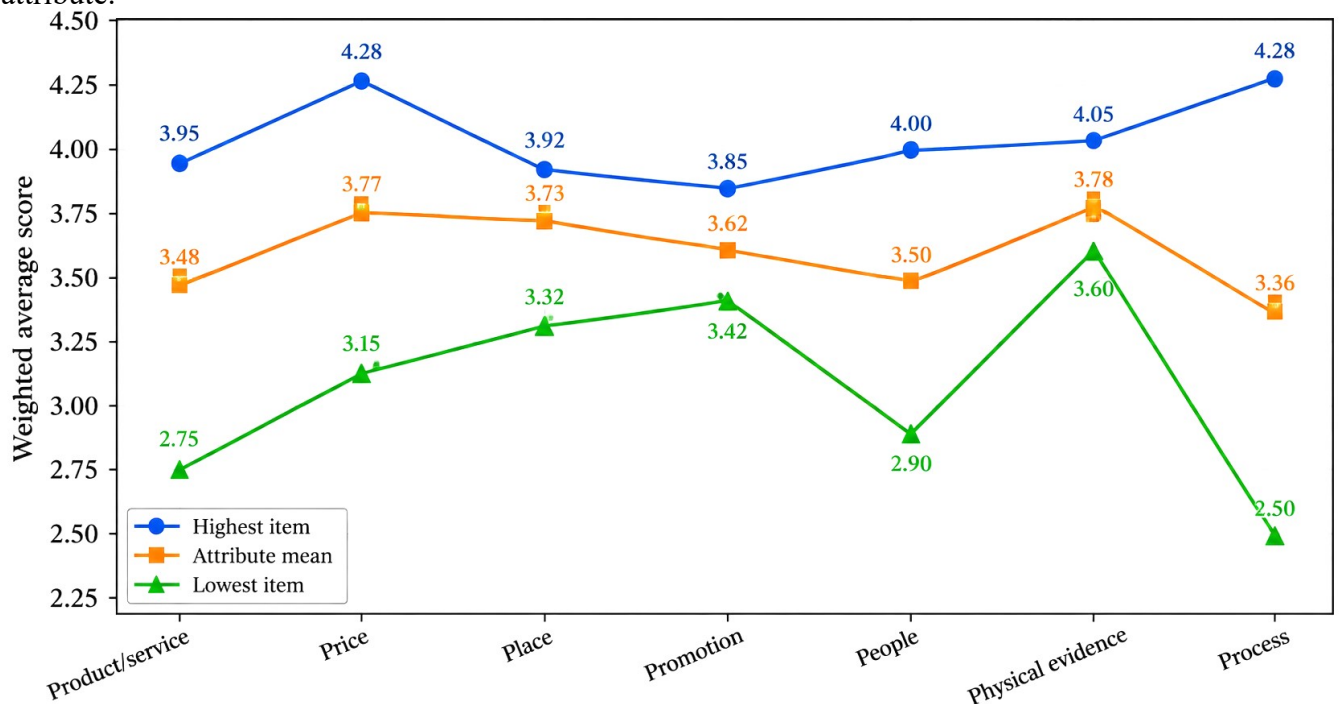


Figure 4. Managerial strength-gap profile across 7P attributes

3.4 Attribute-Level Synthesis

This section is split into three parts and description statistics are presented on the level of attributes in table 5. We have physical evidence sized at the top by mean weighted average, then price, then place (Verma et al., 2026a). This indicates that laboratories are considered slightly more resilient when looking at visible facilities, financial practices and market access. Product/service and promotion 2nd positive but internal gaps People and process need to be looked at carefully as many of the higher scoring items are close to weak staff-capability & patient-communication items (Verma et al., 2025a).

This makes the range column in Table5 especially useful (Verma et al., 2026b). A broad scope means a lot of inconsistency within a dimension! All the process, people and product/service low power but high confidentiality. For process of high dependence on technician, but low qualification lower grade. People are mainly up to quick action reaction and poor complain receiving capacity. These gaps suggest that laboratories should not depend on average scores in marketing effectiveness assessment. Patients do not remember the strongest technical claim but the weakest part of a service encounter (Verma et al., 2019).

Table 5. Attribute-level descriptive statistics and response strength

Rank	Attribute	Items	Mean WA	Max	Min	Range	SD	Mean favorable	Mean unfavorable
1	Physical evidence	5	3.79	4.04	3.61	0.43	0.15	68.6%	14.3%
2	Price	7	3.77	4.29	3.14	1.15	0.34	71.2%	18.2%
3	Place	4	3.73	3.93	3.32	0.61	0.25	66.1%	20.5%
4	Promotion	6	3.62	3.86	3.43	0.43	0.16	60.7%	23.2%
5	People	5	3.49	4.00	2.89	1.11	0.46	58.6%	26.4%
6	Product/service	7	3.48	3.96	2.75	1.21	0.37	59.2%	24.0%
7	Process	5	3.36	4.29	2.50	1.79	0.70	54.3%	32.1%

4. Hypothesis Testing

It accepts receiving the complaint as less than desirable service. You are rejecting the hypothesis that pathologists have no price consciousness in the purchase of kits as the D value of 0.35 was statistically than the critical value as they are considered to be price conscious in procurement (Verma et al., 2019).

The null hypothesis that pathologists do not give commissions to doctors for referring patients is rejected – the calculated D of 0.31 exceeds the critical value. This lends credence to the belief that practice for referral commission is not new in the market (Verma et al., 2022). Hence, the null hypothesis that laboratory prices are not moderate is accepted because value $D = 0.09 < \text{critical value}$. Overall, the findings suggest that price control, ethical promotion and patient-facing fairness are important managerial issues (Verma et al., 2026c).

Table 6. Hypothesis testing summary using Kolmogorov-Smirnov D values

Hypothesis	Hypothesis	Calculated D	Critical D	Decision	Managerial interpretation
H01	Patient complaints are not received and welcomed	0.13	0.257	Accepted	Complaint handling is weak
H02	Pathologists do not consider price while purchasing	0.35	0.257	Rejected	Kit price consciousness is perceived

Hypothesis	Hypothesis	Calculated D	Critical D	Decision	Managerial interpretation
	kits				
H03	Pathologists do not give referral commissions	0.31	0.257	Rejected	Referral commission practice is perceived
H04	Laboratory prices are not reasonable	0.09	0.257	Accepted	Price fairness remains uncertain

5. Managerial Implications

The people's capacity needs urgent attention. Technicians also conduct routine testing, so they should raise their recruitment standards and competency assessment, training, hygiene monitoring and supervision at laboratories (Verma et al., 2025b). The hygiene of the employee and the qualification of the technicians directly influence the service reliability and the trust of the patients. Promotion should also shift from commission based to value-based visibility, transparency, patient education about doctor/ a general awareness health and patient information (Verma et al., 2026d). Another priority is process communication. Laboratories should provide clear pre-test instructions, fasting or sample instructions, communication of delays and direction on where to obtain clinical interpretation. Price lists, standardization packages and concessions of Visible should strengthen the Transparency prices; Such changes can transform the marketing mix from a bunch of transactional activities in to a trust-generative system (Verma et al., 2026e).

6. Theoretical Contribution, Limitations and Future Scope

The findings show that the 7P framework is not sufficient for service marketing in the health support services context where prescriber, payer, patient, lab and supplier are independent actors. The customer independently chooses, buys and evaluates the service in many service industries. In this case, lab services connect the doctor's prescription to patients, lab operational capability and dealer supply. Dealer perception is thus analytically usable. Dealers can see procurement discipline, technology adoption and the credibility lending practices or market behaviors oriented towards one patient vs another or among those to whom they refer (Verma et al., 2026f).

The analysis also shows why laboratory marketing has to be regarded as a system and not merely as a list of seven separate variables. Product/service quality is a function of process control and people capability. "Price is what we see the value as, based on how easily we see that value and whether it seems fair (Verma et al., 2025c)." The area's growth depends on collection logistics and sample integrity. If we base it on credibility and integrity, then we can promote our learnings in a sustainable manner. Physical evidence reduces the uncertainty but the upbeat has to be coupled with technical competence. Process discipline safeguards the diagnostic service promise and its accuracy, confidentiality and usefulness (Verma et al., 2026g).

Another contribution is the interpretation in terms of a strength gap. Poor patient-facing practices can be masked by average scores (Verma et al., 2026h). That puts process into a low-light for counseling and interrogative resolution tasks. That makes process sound great on confidentiality and result checking. Similarly, persons scores are highly technician dependent, but weakly technician qualified. It shows that composite means should not be used by laboratory managers alone. It is possible that the most ineffective service point is the one that has the greatest impact on a patient's memory of a laboratory experience and they need to determine the items with the lowest scores in each of the 7P dimensions (Verma et al., 2026i).

The study is limited to one geography and stakeholder group. The evidence presented here is collected from twenty-eight dealers in Pune city and thus should be treated as evidence of local

dealer perceptions (Verma et al., 2027a). It doesn't directly measure patient experience, the actual doctor preference, laboratory accreditation status, real turnaround time, proper commission payments or reported staff expertise. Dealer perceptions, which are the result of market engagement over time, are still important, but should be triangulated against what is heard from other stakeholders before generalizing far and wide (Verma et al., 2023) (Verma et al., 2027b).

7. Implementation Roadmap

Four priorities can support a pragmatic improvement roadmap. First and foremost, it prioritizes the inclusion of patient feedback. Laboratories should have visible complaint channels; specific personnel should be responsible for closing all complaints and a review of complaint categories (filtered by severity) should take place at least monthly. The second priority is staff capability. From a dealer perspective, it is perceived that people-related weakness can dilute the most competent operational performance. Training qualifications related to technician qualification, initial and ongoing competence of induction as well as hygiene compliance should be recorded formally. Transparent Communication for All Services is the third priority. Show a price list, test preparation instructions, report delivery timelines and escalation contacts at reception, collection center's and digital touchpoints.

Fourth priority to develop the market in ethical way. They can also be retained in the form of Public Relations Officers, health camps and tie-ups with institutions. But this should always only as an adjunct to education vis-a-vis services and quality visibility, not opaque referral dependence. Laboratories for performance turnaround, quality control practices, privacy and patient convenience features. The 7P learnings in this roadmap are applied to management practices that laboratories can adopt to compete on the basis of trust, not reach, price or referral pull.

It recommends that laboratories could look at five basic indicators each quarter for implementation control: average turnaround time, complaint closure rate, completion rate of staff training, compliance with price-display regulation and percentage of reports delivered without a patient follow-up call. These problems lead the indicators to translate the empirical findings into observable routines that give managers a framework for connecting marketing evidence to service outcomes.

8. Conclusion

The research is more qualitative and empirical in nature and shows that dealers report service marketing for labs to be somewhat positive but inconsistent. trained yourself on dwelling remedy prompt service cash collection assortment-center growth communication facilities are good occasion-report confidentiality and result validation. This shows operational discipline and was before we got to market. But going by the weak scores achieved in terms of complaint reception, counseling, query resolution, qualified technicians and employee hygiene it is also shaming for patient centricity and people centricity on service measures. Results of hypothesis tests include perceptions of price consciousness in kit purchasing and perceived referral commission practices as well as confirmation of weak complaint handling and uncertainty of price level reasonableness. The commercial pressures and ethical dilemmas now facing the providers of diagnostic services are indicated by our findings. Laboratory marketing cannot just be about referrals, cash discipline or geographic spread. It should be based on transparency, continuity of service, professionalism in the management of people and reliability of patients. The bigger point is that the 7P marketing mix for laboratory services is an interlocked trust system. The product/service quality, fair price, accessible delivery (place), ethical/convincing promotion, right people, sound physical evidence and disciplined process design must mutually reinforce each other. When laboratories build on the strengths of their operations and reinforce the weaker areas of their patient-facing processes, the brand of diagnostic service is more credible and ethically sustainable.

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