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Research Article

Exploring The Digital Marketing Dynamics Of MSME Technology Services Companies In India

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ABSTRACT

The study explores Go-To-Market (GTM) strategies for MSME technology service companies in India, focusing on market outreach, digital marketing, and revenue optimization. Given the booming SaaS industry, understanding conversion drivers and market positioning is crucial.

A structured survey with 301 responses from sales and marketing professionals revealed key insights. Engagement-driven strategies, referral traffic, and customized user experiences emerged as the strongest conversion factors. B2B firms (₹10-50 Cr revenue) perform better, leveraging content-driven engagement, while B2C companies benefit from pricing strategies and influencer marketing.

Machine learning analysis confirmed that higher engagement (5%+) increases conversions, while generic social media campaigns underperform. Companies prioritizing referral programs and data-driven personalization achieve superior ROI.

The findings offer strategic insights for Indian SaaS firms, highlighting the importance of adaptive marketing, technological investments, and customer segmentation to optimize GTM approaches. Future research should explore regulatory impacts and financial disclosures for deeper industry insights.

COMPLIANCE WITH ETHICAL STANDARD

Conflict of interest- The author declares that there is no conflict of interest.

a) Funding (needed only if applicable)- The research was self-funded by the author.

b) Ethical approval- Not Applicable

c) Informed consent- It was Taken.

Keywords: SaaS- Software as a Service, HealthTech- SaaS companies in healthcare space, EdTech- SaaS companies in education space, AgriTech- SaaS companies in agricultural, on storage and distribution space, FinTech- SaaS companies in finance space

BACKGROUND AND RATIONALE

IT Services market in India, is projected to be $29.9Bn by 2025 and well on their way to become $44 Billion (Bn) ARR (annual recurring revenue) by 2030, according to Statista. The industry is estimated to grow by 12% this year. This is a sunrise industry and must be nurtured. Unfortunately, this industry is not researched well academically. We wanted to understand what problems they are solving. Which segment of the society are they catering to? What geographies are they catering to? What challenges are they facing? How are they adapting to the challenges? What were the "go to market" strategies? Are they catering to consumers or business segments? What are the pricing strategies? How are consumers responding?

RESEARCH OBJECTIVES:

So, we took only two objectives to focus ourselves.

1. To analyze the market outreach strategies and understanding key marketing metrics.
2. To evaluate the impact of the aspects of go-to-market strategies that work.

LITERATURE REVIEW

Initially we shortlisted 45 articles from leading journals from publication house websites, google scholar search based on relevance, impact, citations, recency, and journal reputation. Using PRISMA 2020 checklist we systemically reviewed and finally added 30 references here (Page et al., 2021)[8]

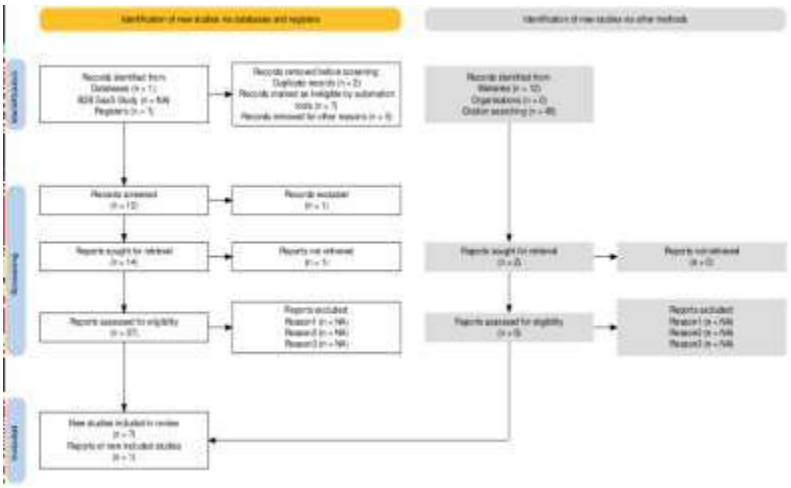


Figure 1- PRISMA 2020 statement

The pandemic accelerated the move towards e-commerce and the trend is continuing. The expenditure is estimated to yield a CAGR of 32% by the exit of 2025. (Singhi et al, Aug 2023) [26]
Indian consumer online spending and new shoppers are increasing progressively as shown in Figure 2.

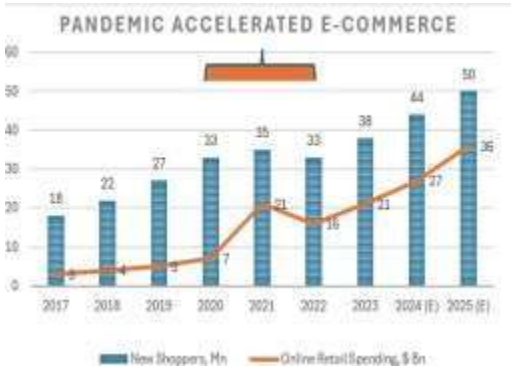


Figure 2- Post pandemic growth

Figure 3 shows the distribution of economy among the technology services sector in India. The market is headed by Fashion, accessories, and beauty products with a total valuation of $69 Bn which possess 9 unicorns. This is followed by Education sector which is valued $39 Bn and having 4 unicorns. Then there is Media and Entertainment valued at $36 Bn with 7 unicorns. The mobility sector, which has global ride hailing apps like Uber, is valued at $31 Bn with 6 unicorns. Food and nutrition secure $30 Bn turnover with 6 unicorns. Healthcare, wellness products is valued at $20 Bn annual turnover with 4 unicorns, while Recreation & Housing – Utility have smaller market turnovers of $17 Bn and $7 Bn, respectively. Then there are a miscellaneous group, combining a valuation of $7 Bn and 2 unicorns to their kitty.

(Singhi et al, Aug 2023) [26]

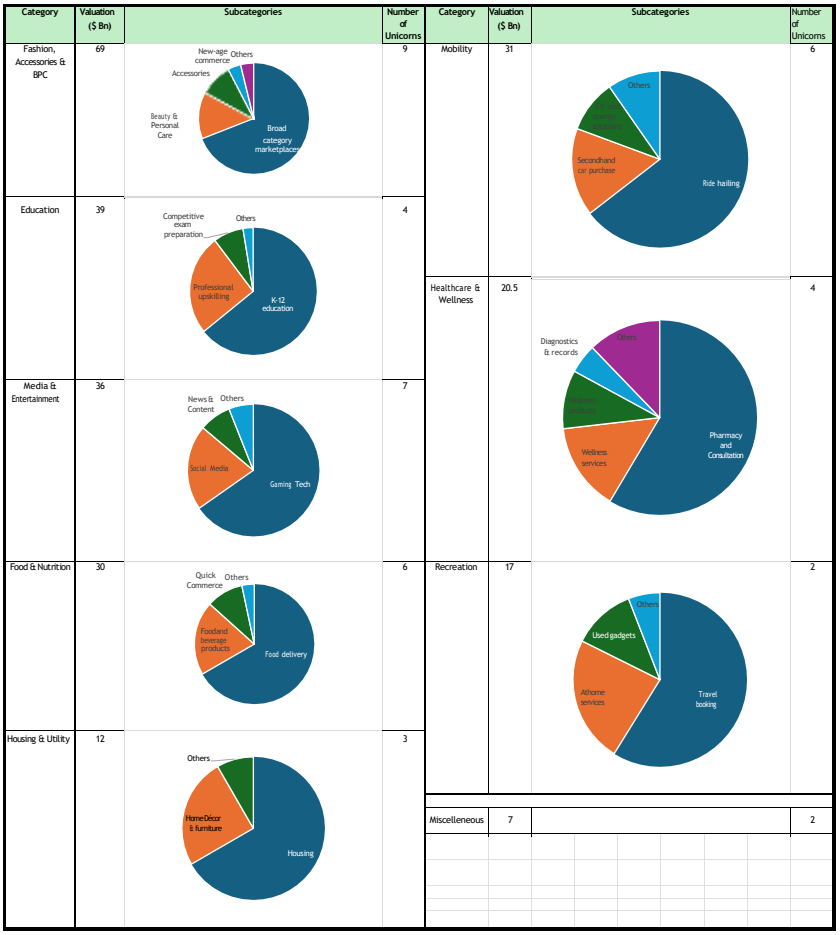


Figure 3

(Singhi et al, Aug 2023) [26]

Seventy Two percent (72%) of the marketer's project increased allocation on digital marketing channels in 2024, despite global economic concerns. (Nielsen, 2024). The broadband connections in India have reached 944 Mn and rural tele-density has reached to 58% and Urban 131% (TRAI Press Release, Jan 2025). According to an estimate by Statista, the digital advertising market had grown from ₹62 Bn in 2016 to ₹508 Bn (E*) in 2024. All these factors highlight the important and necessity for in-depth academic research on these evolving sectors of India. (TRAI, 2025) [5]

I. Market Positioning and Growth Strategies

Powered by cloud computing SaaS has transformed the software delivery model globally. The impact has been there in all aspects of consumer behavior and marketing mix.

A. Early Studies

Paul et al. (2020) provided foundational understanding of cloud computing as a delivery model of SaaS. The argument proposed was that SaaS, together with Cloud delivery model, has shifted from differential pricing model to an indifferentiable one, allowing companies to execute growth strategies even in a highly competitive environment. (Paul et al., 2020) [9]

Gohad, Narendra, and Ramachandran (2013) highlighted pricing strategies in cloud computing, especially for SaaS models. They point out that the growth is a result of efficient resource utilization, and recommend flexible pricing strategies, driven by periodic utilization analysis, often lead to higher revenue at a lower burn rate- thus enabling the companies to remain profitable. Adamuthe et al. (2015) took a broader look at the market trajectory of cloud-based application providers- focusing on revenue models and innovation. Though not solely focused on SaaS, their research

enabled how a cloud-based environment enabled companies to reduce costs, improve scalability, and improve marketing positioning. For example, Slack, a cloud-based platform, was able to leverage the lower upfront cost, by being an early adopter of cloud-based solutions. (Gohad et al., 2013[10], Adamuthe et al. 2015[11])

B. Contemporary SaaS growth strategies

The data-based approach in decision making, product offering using customer segmentation, echoing for flexible pricing models highlighted by Gohad et al. (2013) & Paul et al. (2020). In their lean scaling handbook, Sinha et al. (2023), highlighted lead generation and customer segmentation pricing strategies, to be crucial for SaaS companies' growth. The fast nature of technology, advances in computational and software communication abilities are fueling companies into rapid innovation cycles maximizing the existing digital assets. Gnanasambandam, Libarikian, and Turkeli (2022) highlighted six growth strategies for businesses. (Sinha et al., 2012[12], Gnanasambandam et al., 2022[13])

C. Emerging trends

The ability to predict the customer lifetime value (CLTV) has been key to success for such enterprises. Curiskis et al. (2023) introduced a machine learning concept that considered diverse customer relationships, multiple products, and scarcity of temporal data for arriving at an outcome. By treating CLTV as a lump sum prediction problem, the machine learning framework helped to optimize marketing spending and boost return of investment. (Curiskis et al.,2023 [30])

In his thesis, Golovanos (2021) discussed the importance of market localization in SaaS companies. He highlighted the challenge that 'born global' SaaS companies often face in the local environment. Hence is the importance of marketing localization. He proposed a framework for evaluating the localization opportunities, which focused on sales dynamics, market demand and local language proficiency. (Golovanos 2021) [14]

II. Challenges of SaaS companies

Adoption of cloud-based solutions has enabled businesses to offer scalability, customization- flexibility, & affordability for consumers. However, the integration is laced with various challenges.

A. Initial Challenges of SaaS adoption

Janssen & Joha (2011) explored, the challenges faced by public sector enterprises adopting SaaS endeavors. Privacy, Security and Governance were the main concerns, together with the lack of control over IT (Janssen & Joha, 2011). Lewandowski et al. (2013) expanded this discussion to enterprise resource planning (ERP) solutions, offered by cloud computing, like SAP S4 Hana. They discovered that small and medium enterprises (SME) endured better, though they faced cost minimization challenges, but for them, adaptability was easier, and the learning curve was shorter and less painful.

(Janssen and Joha 2011[19], Lewandowski et al. 2013[18])

B. Architectural & Integration Challenges

Kaikkonen (2019) studied the integration challenges of SaaS companies in multi-system environments. For example, Salesforce, an extremely popular customer relationship management solution, often faced integration challenges, with leading ERP providers, like SAP, or Oracle, often with the on-premises legacy systems. They struggled with data-synchronization. These integration issues resulted in Data silos, customer API and middleware, and problems of real time data synchronization. To overcome this challenge, came an integration platform as a service (iPaaS), MuleSoft (owned by salesforce now).

(Kaikkonen, 2019) [17]

Research by Ali et al. (2020), provided in-depth alignment challenges for business and IT strategies in SaaS. Companies lacking technical expertise, in C-suite level, lacked the ability to adapt to the existing IT architecture to cater to the service offering. SaaS features like on-demand services, and rapid elasticity. An e-commerce company may cater to rapid orders during Diwali (India), Single's Day (China), or Black Friday (US). For a company to cater to the demand spike, necessitated scaling resources, such as CPU, Memory, and storage, up and down in real time, to meet fluctuating demand. A way to do it was with AWS EC2 (elastic computing cloud). However, as Ali et al. pointed out, such scenarios may result in vendor lock-in and information security concerns. (Ali et al., 2020) [15]

C. Pricing and Market Positioning challenges

SaaS pricing strategies were investigated by Saltan and Smolander (2021). They showed that SaaS pricing was often the least managed- yet the most critical aspect in the business strategy. Seethamraju (2015) examined the challenges of SaaS ERP adoption in SMEs. While SaaS offered effectiveness to use, change management, cost benefits, among others, a significant challenge was implementation trial and error. The vendor's (developer) willingness to co-create value, post implementation, emerged as a crucial factor.
(Saltan and Smolander, 2021 [16], Seethamraju, 2015 [22])

D. Recent Challenges in development and security

An empirical study, by Aleem et al. (2019), focused on multi-tenancy architecture (MTA), customization, and scalability. Gibson et al. (2012) further investigated the security and privacy concerns. They demonstrated that Data Privacy and integrity of cloud infrastructure are still major obstacles.
(Aleem et al., 2019 [24], Gibson et al., 2012 [23])

RESEARCH METHODOLOGY

We understood the challenges, status of Indian SaaS companies and general situation of the companies operating in this sector. We approached the sales and marketing professionals, and those of the leadership teams for their opinion, with a structured questionnaire.
The survey was a series of structured close-ended questions, split into eight chapters. To get responses from target customers, we used screening questions to remove other responses. Learning from Lewandowski et al. (2013), who showed the importance of structured surveys to capture specific challenges in adoption, we aimed to identify the pain points and growth enablers in the Indian market. We designed the survey to gather non-confidential information, in a completely voluntary way and we assured the respondents that responses will only be used for academic purposes. The survey did not collect personal information, like name, mobile number, address, email. Voluntary entry of company name was allowed. The response options were provided in the Likert Scale format, often allowing the responders to choose multiple responses. This approach allowed the responders to reflect on their experiences and highlight multiple choices. Lewandowski et al., 2013) [18]

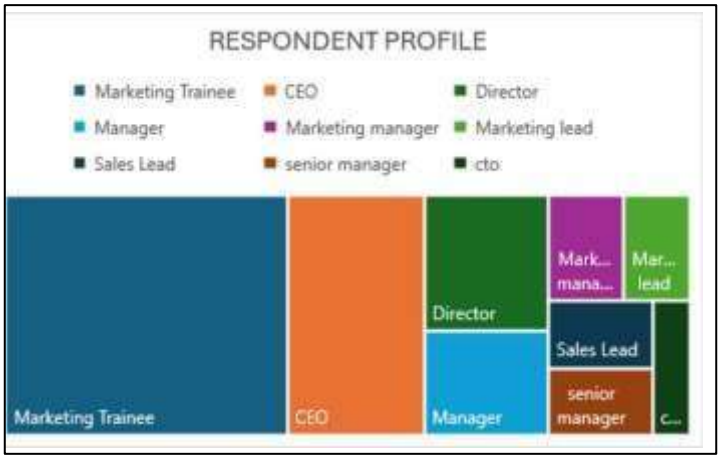


Figure 4

Our outreach was primarily conducted through LinkedIn direct messages, where participants were from sales, marketing, or leadership roles in SaaS enterprises. Targeted emails were also sent to professionals. The approach aligns with Kaikkonen (2019), who recommended diverse outreach strategies. The other aim was to reach various locations, scale of companies, and verticals, as suggested in Saltan & Smolander (2021). Direct communication with potential respondents proved effective in getting better quality responses. (Kaikkonen. 2019 [17], Saltan & Smolander, 2021 [16])

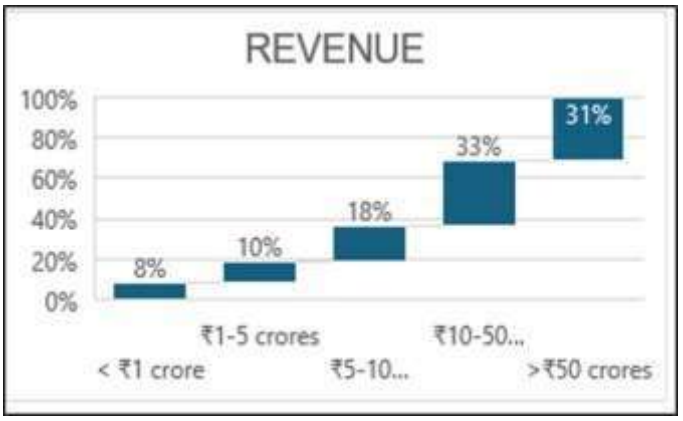


Figure 5

The sample size was 301. We calculated Cronbach Alpha and found the value to be 0.87, showing strong internal consistency of the dataset. The respondent profile is added here (Figure 4). The data shows a diverse trend with the largest being the marketing trainees. We also had a fair share of responses from the CEO's offices, directors, & managers.

Respondent Demographic Analysis

1. **Industry- wise**- a considerable number of respondents were from the software industry (247), Consulting, FinTech & other (e-commerce, defense, etc.).
2. **Target Market**- Significant of them target North India, closely followed by South India, West India, and All over India. A smaller % of companies target East India, Export market, or other countries.
3. **Company Size**- 64% of the respondents work in a company, more than ₹10 Cr ($1.2 Mn). 31% are more than ₹50 Cr ($5.95Mn). (Figure 5)

Population

- Software Services Companies
- As of FY 2024, ~with 740,000 in India including all Micro, Small and Medium enterprises (Statista- for Technology Firms).

Intervention

- A structured survey with **57 Likert-scale questions (5-point scale)**.
- Sample Size (**n=301**).
- Anonymous study; company name optional.
- **Convenient sampling** method used.

Comparison

- Examined **regional variability** in customer preferences and financial metrics.
- Compared results with **secondary data** (included as an extra read).

Outcome

- Insights provide strategic implications for Indian SaaS companies.
- Please refer to Results & Discussions section.

RESULTS & DISCUSSIONS

Growth Drivers & Business Continuity

We developed this survey to capture the story of small and medium sized companies. We wanted to estimate and ask questions which can provide us with insights into the company's business, especially in the financial domain that affects the go-to-market (GTM) strategies. For the sake of secrecy, we will not be mentioning the corporation names.

We can see from data (Figure 5) that 31% of the companies were more than ₹50 Crore ($5.95Mn) and 33% were between ₹10—50 Crore ($1.19 Mn- $5.9 Mn). Also, 18% of respondents were less than ₹5 Crore ($0.59 Mn) of annual revenue. More than 83% of the respondents said they worked with the business-to-business model. While doing so, 40% were collaborating with the consumer segments also.

EdTech, FoodTech and AgriTech were primarily consumer faced, while being open to business-to-business opportunities. While software, consulting had a more balanced mixed portfolio.

What were the biggest impediments? 29.8% cited regulatory issues and market competition, 22.4% cited cultural differences, 18.1% spoke about infrastructural limitations.

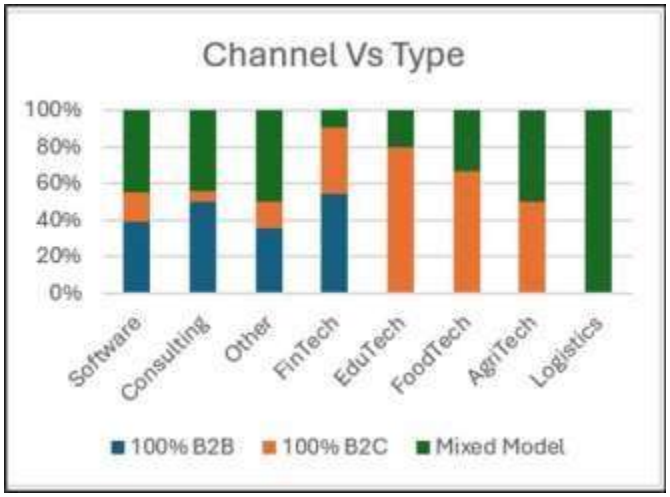


Figure 6- Type of Problems and Industry Sector

A. Market Segmentation- Majority respondents source clients from B2B and B2C- relying more on Mixed models.

B. Funnelization- So how many leads do the companies generate? More than 500 leads/ month are generated by 16%, while 100-500 leads are generated by 39%, 50-100 leads by 31%. How are the conversion effectiveness? We checked the lead to customer conversion ratio. It is healthier than 30% for 18% of respondents, 45% reported conversion between 20-30%, 30% reported between 10-20%.

GO-TO-MARKET STRATEGY

For the company's GTM strategy, we found that the Customizable user interfaces were the most significant, with over 31% found it as a critical factor. The flexible pricing plan & Personalized customer support came next with 30% and 26%, respectively. Looking at the future, respondents were asked for factors to watch out for in the marketing management space. Personalization appeared as the top choice (33%), followed by Automation (32%) & Data Privacy and Security 26%. When asked how the companies were preparing to adapt to the technological upgradation, 31% reported that they are investing in innovative technologies, 26% reported to enhance privacy measures.

We asked about the company's advertising preferences next and 92% reported using digital advertising channels, using social media, cold/ warm calling, email marketing or other means. So how do companies cater to social factors and mitigate through the maze of local regional expectation and cultural differences? Respondents recognize this aspect. 33% cater and tailor their campaign to suit local language preferences.

Another aspect was lead generation and the effectiveness of advertising. Some were extremely fortunate and 15% reported more than 50,000 monthly traffic. 36% reported 10,000-50,000 traffic. So, what are the sources for the website traffic? 23% responded saying organic search, 28% said due to links from social media post, 21% relied on paid campaigns.

On Website conversion rates, 52% respondents reported between 2-5% conversion, while 23% reported more than 5% conversion. The average reach of the website being reported 44% to 50,000-100,000 respondents, 15% reported an even higher reach.

We then shifted to digital advertisements. We checked, among the willing respondents who engage in advertising, that 37% have an impression of 100,000-500,000. We checked earlier that companies are advertising for brand

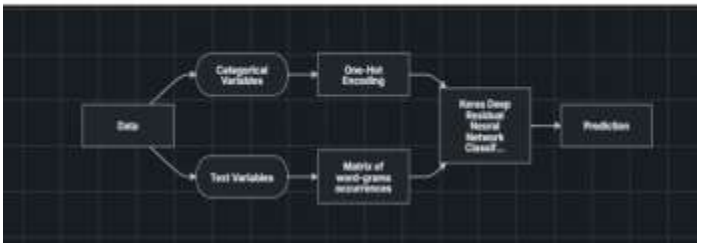
recall. So how many “mentions” that companies find in social media? We found that 44% responded with brand mentions of 500-1000 times in a month.
So, what is the average engagement level? This can be measured from the likes, shares, and comments. Often engagement can be an indirect derivative of customer trust. While 28% reported an engagement of 1-2%, 38% reported an engagement of 2-5%.
How do companies view customer feedback? How seriously is it taken? 31% responded, saying that they incorporate feedback into product updates, 28% use feedback to tweak marketing messages.
For deeper understanding, we used machine learning approaches and developed machine models.

Data Distribution-

Table 1- Dataset Details

	Type	Feature
Website's conversion rate	String	Target Variable
Problem being solved	Text	Independent Variable
Annual Revenue Range (Cr)	String	Independent Variable
B2B or B2C	Text	Independent Variable
Digital marketing tools	Text	Independent Variable
Average monthly traffic	String	Independent Variable
Reach of your digital marketing campaigns	String	Independent Variable
Impressions of your digital ads	String	Independent Variable
Frequency brand mentioned across social platforms	String	Independent Variable
Average engagement level	String	Independent Variable
Primary sources of your website traffic	Text	Independent Variable
Digital marketing strategies	Text	Independent Variable
Main challenges implementing digital marketing	Text	Independent Variable

Figure 7- The Treatment of Data



This table (Table 1) provides a structured view of the dataset used for the machine learning model, categorizing variables into independent and dependent features. The dataset includes a mix of categorical and text-based features, with the target variable being the website's conversion rate. We used Data Robot.
This diagram (Figure 7) outlines the preprocessing steps taken before feeding data into a deep learning model. Categorical variables are one-hot encoded, while text variables are transformed using word-gram occurrences. One-Hot Encoding is used to derive data into numerical format for machine learning models. Word-gram occurrences refer to the frequency of sequences of words (n-grams) in a text, which helps capture context and patterns in textual data. The final processed data is then input into a deep residual neural network.

AUC (Area Under the Curve) measures a classification model’s ability to differentiate between classes. It represents the area under the ROC curve, plotting True Positive Rate against False Positive Rate. AUC ranges from 0 to 1, with higher values indicating better performance in ranking positive instances above negative ones.

Table 2- Best Fit Models from AutoML

Keras Deep Residual Neural Network Classifier using... ☆ 0.8116 Informative Features 80% (241 rows)	Keras Deep Residual Neural Network Classifier using... ☆ 0.8051 Informative Features 64% (192 rows)
Regularized Logistic Regression (L2) ☆ 0.8019 Informative Features 64% (192 rows)	Keras Deep Residual Neural Network Classifier using... ☆ 0.8006 Informative Features 64% (192 rows)
Gradient Boosted Trees Classifier ☆ 0.7965 Informative Features 64% (192 rows)	Keras Deep Self-Normalizing Residual Neural Network... ☆ 0.7963 Informative Features 64% (192 rows)

This Table 2 depicts the performance of various models evaluated for targeting conversion rates. The Keras Deep Residual Neural Network achieved the highest accuracy (AUC- 0.8116). The deep learning model betters other machine learning models.

The confusion matrix (Figure 8) enlists a detailed classification of the model's performance. The model performs well in predicting conversion rate categories, particularly in the 2-5% range, where recall is high (0.83) and the F1 score is 0.74.

Figure 8- confusion Matrix

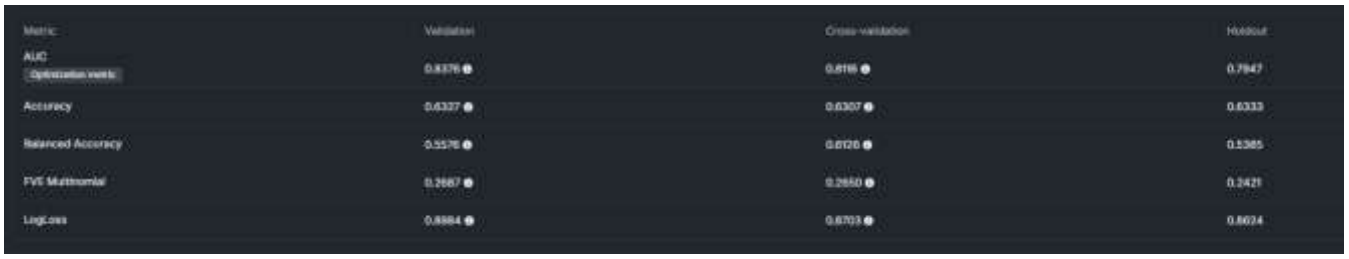


Figure 9- Model Metrics

This table (Figure 9) displays validation, cross-validation, and holdout metrics for different evaluation measures. The Area Under Curve (AUC) is 0.8376 for validation and 0.7947 for holdout, indicating strong predictive power. However, accuracy (0.6327) suggests room for improvement.

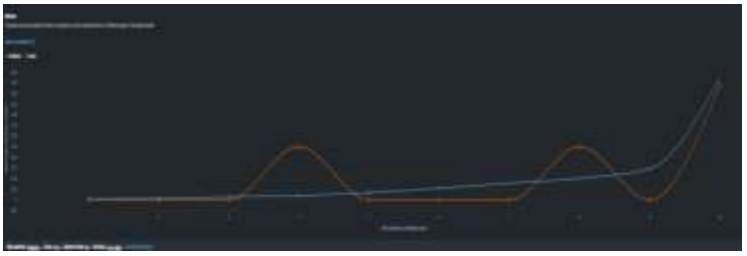


Figure 10 - The Data fitment (Predicted vs Actual)

Figure 10 compares the model's targeted values with actual conversion rates. The model captures trends well but deviates in extreme cases, showing some overfitting in peak areas.

Model Explanations-

This figure (Figure 11) ranks the importance of unique features in predicting conversion rates. Average engagement level and digital marketing tools have the highest influence, while campaign reach and problem statements have the lowest. Engagement is a critical factor in improving conversions, reinforcing the importance of interactive and customer-centric marketing strategies.

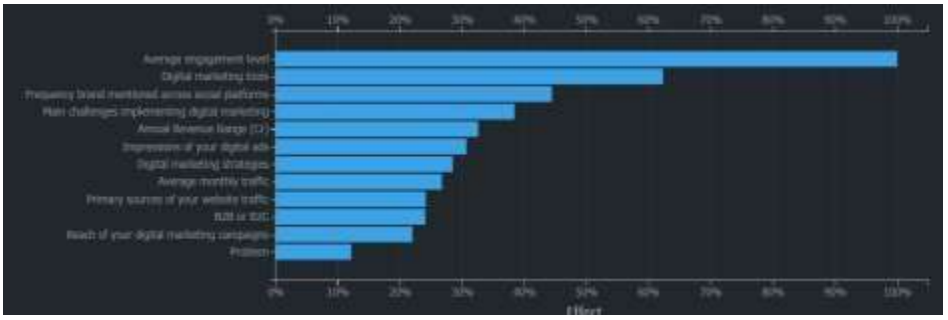


Figure 11- Main Factors and its impact

This visualization (Figure 12) highlights the positive and negative impact of distinct factors on conversion rates. Customer-centric strategies such as engagement, personalized digital marketing, and traffic sources have a positive impact, while generic marketing tactics have a lower influence. The data suggests that targeted engagement-driven strategies outperform generic approaches, emphasizing the role of tailored marketing campaigns.

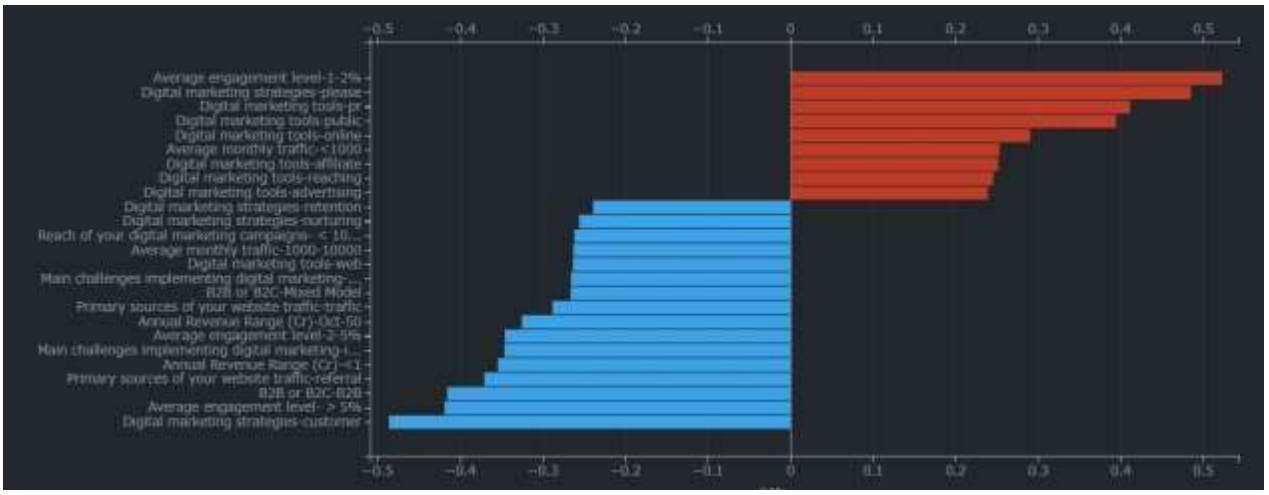


Figure 13- Key Insights

This word cloud (Figure 13) highlights key terms that correlate with successful conversions. Terms like "customer retention," "influencer," "SEO," and "social" are prominent, suggesting their strong association with conversion rates. Digital marketing strategies that emphasize retention, influencer marketing, and search optimization are likely to yield higher conversion rates.

Figure 14- Word Matching with Target

The model's cross-validation accuracy (0.63) and holdout accuracy (0.63) indicate moderate reliability, but misclassifications are a risk, for predicting conversion rates. The AUC (0.81) suggests strong class differentiation, yet the balanced accuracy (0.61) and log-loss (0.86) show some inconsistencies. The confusion matrix highlights false positives (21.67%) and false negatives (8.33%), impacting campaign decisions.

The model demonstrates strong potential in analyzing the impact of major independent variables on the dependent variable (conversion rate). With a cross-validation AUC of 0.81, the model effectively distinguishes between different conversion probability classes. The confusion matrix indicates that the model captures key trends, particularly in the 2-5% conversion range, where recall is 0.83, proving its ability to detect patterns in digital marketing effectiveness. Feature importance analysis highlights engagement level, digital marketing tools, and brand mentions as dominant factors, reinforcing data-driven marketing strategies.

What does the machine learning model say?

Let us start with engagement level analysis. (Figure 14) shows the impact of engagement level (highest impact factor) on Conversion Rate. Higher engagement levels (above 5 on a scale of 1-10) can be observed linked to higher conversion percentages. Businesses should invest in customer engagement tools (personalized experiences, interactive content, and customer support) to boost conversions.

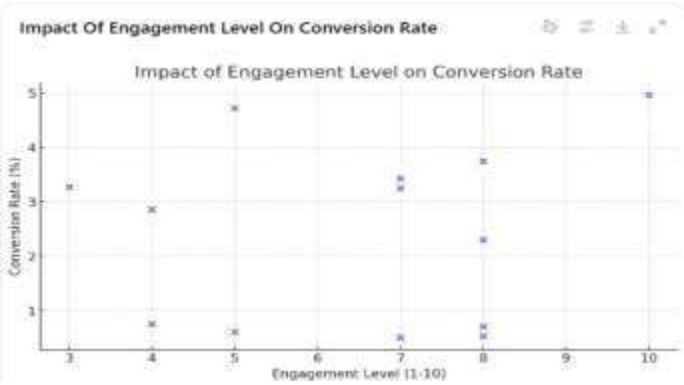


Figure 15- Conversion rate vs engagement level.

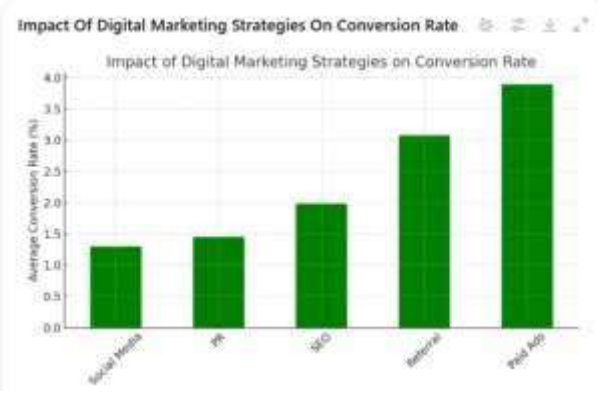


Figure 15- Digital Marketing Strategies- on conversion rate

The bar chart (Figure 15) highlights the effectiveness of different digital marketing strategies in driving conversions. Referral marketing (3.1%) and Paid Ads (3.8%) yield the highest average conversion rates. SEO (2.0%) and PR (1.5%) perform moderately, while social media has the lowest conversion rate (~1.3%). Brands should prioritize referral programs, influencer collaborations, and paid ad optimizations to drive conversions.

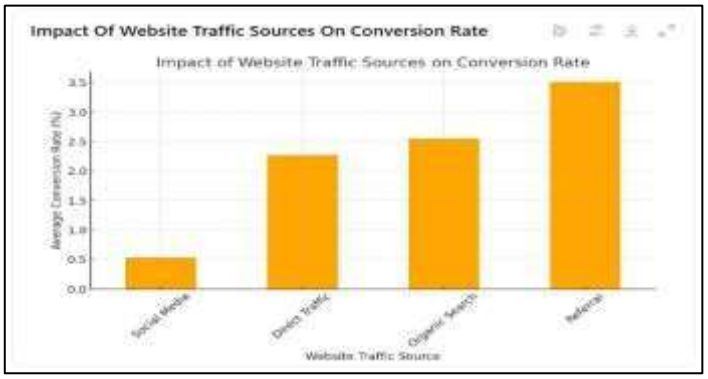


Figure 16- Website Traffic impact on Conversion Rate

Next, we will explore Sources of Website Traffic (Figure 16) & its impact on conversions. Referral traffic has the highest conversion rate (~3.5%), aligning with Figure 12 insights that referrals drive the best results. Organic search (SEO) follows at ~2.5%, showing that strong search visibility improves conversions. Direct traffic (users directly visiting the website) has moderate conversion success (~2.2%). Social media traffic (0.5%) performs the worst, suggesting that while social media generates awareness, it doesn't directly convert users. Implication: Brands should prioritize referral programs, influencer marketing, and strong SEO strategies to maximize conversions.

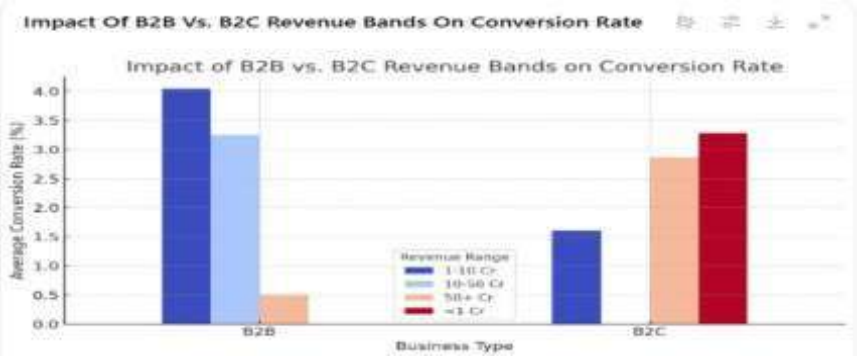


Figure 17- Impact of Type of Business

The type of business to average conversion rate shows an interesting insight. (Figure 17). B2B businesses with revenue between 10-50 Cr have the highest conversion rate (~4%), suggesting that established B2B firms convert better. B2C brands with revenue under 1 Cr (~3.2%) also convert well, indicating aggressive customer-focused strategies. Lower-revenue B2B brands (<1 Cr) struggle with conversion (~0.5%), reinforcing that content-driven engagement works better in B2B. Implication: B2B firms should focus on content-based lead generation, while B2C brands should optimize pricing and promotions to drive conversions.

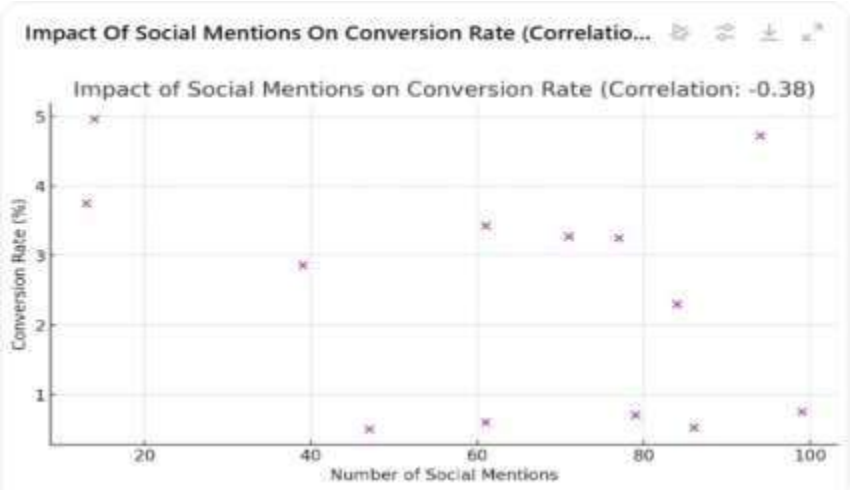


Figure 18- Impact of Social Mentions

Social mentions- does it influence conversion rate? (Figure 18) shows us how. The scatter plot shows a weak negative correlation (-0.38) between social mentions and conversion rates. This indicates that more social media buzz doesn't always translate into higher conversions. Implication: Brands should prioritize influencer marketing and engagement-driven interactions rather than just focusing on increasing mentions.

RECOMMENDATIONS

For better go-to-market strategies,

A. Higher engagement levels directly improve conversion rates (above 5% engagement shows stronger conversions).
B. Referral traffic and paid ads outperform organic search and social media in driving conversions.
C. B2B firms with mid-range revenue (10-50 Cr) convert best, while B2C brands rely on pricing and promotions.
D. Generic social media presence doesn't guarantee conversions; influencer-driven engagement is more effective.

LIMITATIONS & FUTURE RESEARCH

Sample representation- Our collected sample was in limited nature and must be supplemented with a wider range of study.

A. **Due to confidentiality reasons, we have not asked for information about market share or financial information.** Such studies, especially for listed companies, can be undertaken.
B. **Limited focus on external factors-** The impact of regulation, geopolitical risk, impact of interest rate and foreign exchange fluctuations**,** can be further studied.
A. **The impact of scarcity of human resources can be studied for this sector.**

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