



Evaluating the effectiveness of digital marketing strategies for small-scale enterprises in Bihar

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Abstract

The present research has been conducted on the digital marketing strategy used by small-scale enterprises (SS-Es) in Bihar. The study is based on both qualitative as well as quantitative assessment of 200 small-scale enterprises mainly from retail, manufacturing as well as service sector. Due to mobile internet and greater penetration of smartphones, SS-Es are using digital marketing for market development and customer engagement. The research examines the effectiveness of four main digital marketing strategies: social media marketing, search engine optimization (SEO), email marketing, and paid advertising. Using regression models, the research establishes the relationship between the use of these strategies and business performance which results in sales growth, market expansion and customer acquisition. The limitation of digital literacy, infrastructure, and high cost were studied in the digital marketing assignment to understand the barriers. According to the findings, although digital marketing holds substantial potential for SS-Es of Bihar, effective interventions should be made to overcome the barriers hence enhancing their effectiveness.

Keywords: Digital marketing, small-scale enterprises, Bihar, customer engagement, sales performance, challenges, opportunities

Introduction

All small scale enterprises also known as SS-Es, are very important for the economy of the state of Bihar. Apart from that, they also play an important role in generating employment opportunities and economic development. Nonetheless, a sizable percentage of these enterprises have trouble scaling up their operations owing to limited resources, geographical constraints and traditional marketing. The expanding reach of the internet and smartphones that we are witnessing in recent years has opened up new doors for broader digital marketing by SS-Es. Social media marketing, search engine optimization (SEO), email marketing, and online advertising are a few examples of digital marketing that can improve market visibility and customer engagement at a low cost. It provokes better sales.

The digital marketing adoption in Bihar is in its budding stage, several barriers hinder the use of digital marketing. Small business owners are unable to derive maximum benefit from these digital tools because of challenges related to infrastructure, digital literacy, and resources. Nonetheless, gradually some literature is emerging on the benefits and challenges of digital marketing adoption by small businesses in India. Limited studies have been conducted from the context of Bihar. Therefore, this study is designed to check the availability and effectiveness of digital marketing by SS-Es in Bihar State.

This research paper aims to assess the effectiveness of digital marketing in enhancing the performance of business SS-Es in Bihar. This study examines the impact of digital marketing on sales growth, customer acquisition, and brand visibility. Also, it studies the difficulties faced by businesses in implementing these strategies and suggests policies to improve the digital marketing environment for SS-Es in Bihar.

Digital Marketing and Its Impact on Small Business Performance

Digital marketing technologies have gained international recognition in the small and medium enterprise (SME) sector. Have you noticed any grammatical error in the above phrase? Studies have shown that SMEs utilising digital marketing strategies have increased market visibility, greater customer engagement, and ultimately higher sales. According to Chaffey and Ellis-Chadwick (2019) ^[4], digital marketing enables businesses to reach thousands of people in a targeted manner while minimizing the geographical and monetary constraints of traditional marketing techniques. For example, social media such as Facebook and Instagram along with WhatsApp enable businesses to build brand awareness, engage with customers directly and develop loyal customer bases. Search engine optimization (SEO) is a process that makes a business's website more visible on the search engine results page (SERP) of Google and has other search engines. SEO helps a business's website to generate traffic on the website organically. In the same way, email marketing helps generate sales from leads and maintain a relationship with existing customers.

Kotler and others (2017) report that "success in digital marketing is determined by content, consistency, analytics, and tools". Research by Kotler *et al.* (2017) "suggests that the success of digital marketing strategies hinges on several factors, including the quality of content, consistency in engagement, use of analytics, and proper selection of digital tools. When small businesses use it, they tend to get more customers, an effective return on investment (ROI) and a better position in their chosen market than competitors.

Regional Context: Digital Marketing in Bihar

SS-Es adoption of digital marketing is still limited in Bihar but realises its potential. As per a report of Bihar State Electronics Development Corporation (2018), digital tools are being adopted in rural areas and semi-urban areas.

Internet penetration has risen for the last 10 years steadily in these regions. However, the lack of sufficient infrastructure in Bihar and other states including poor internet connectivity makes it impossible for small businesses to effectively use digital marketing. According to research conducted by Sarma in 2020 [17], businesses in capital cities like Patna, Bihar, are experiencing positive results from adopting digital marketing. However, rural businesses still do not get the positive benefits because of poor internet connectivity and lack of tech-savvy workers. According to Sharma (2019) [19], the financial constraints faced by the SS-Es’ of Bihar reduce the effectiveness of their efforts through a lesser amount of investment in the digital marketing tools. The entrepreneurs in the area of a small business are not much aware of the digital marketing methods. Plus, the digital literacy is also lacking. As a result, the use of digital marketing tools such as SEO, online advertisements and social media marketing varies widely with their usage often not achieving the desired results. Even after so many issues, studies claim small businesses in Bihar slowly are beginning to understand the importance of digital marketing. For example, researches done by Gupta and Yadav (2021) [9] revealed that in Patna, 60% of SS-Es are using social media to promote their product and 30% of them were able to earn sales due to it. This result is consistent with the global phenomenon of digital marketing adoption resulting in better business performance.

Research Objectives

This research aims to evaluate the effectiveness of digital marketing strategies in enhancing the performance of small-scale enterprises in Bihar. The study has the following specific objectives:

1. To assess the current state of digital marketing adoption among SS-Es in Bihar.
2. To evaluate how digital marketing strategies, influence business outcomes such as market visibility, customer engagement, and sales growth.
3. To identify the barriers and challenges faced by SS-Es in adopting digital marketing strategies.
4. To provide recommendations for policy interventions and strategies to improve the effectiveness of digital marketing in Bihar’s SS-Es.

Methodology

1. Research Design

This research follows a mixed-methods approach, combining qualitative and quantitative data collection

Techniques to gain a comprehensive understanding of the effectiveness of digital marketing in SS-Es in Bihar. The study utilizes a survey to collect quantitative data and interviews to obtain qualitative insights.

Survey: A structured questionnaire was designed to collect data from 200 SS-Es in Bihar, including questions on the adoption of digital marketing tools, the perceived effectiveness of these tools, and the challenges faced in implementing them.

Interviews: Semi-structured interviews were conducted with 20 SS-E owners and managers in urban and rural areas of Bihar to gather in-depth insights into their experiences with digital marketing.

2. Data Collection

Primary Data: The primary data for this study were collected through surveys and interviews. The survey was distributed electronically to 200 SS-E owners in Bihar, covering a range of industries such as retail, manufacturing, and services. The interviews were conducted in person or over the phone, depending on the availability of the participants.

Secondary Data: Secondary data were gathered from government reports, industry publications, and academic research related to digital marketing adoption in Bihar and India.

3. Data Analysis

The data were analyzed using descriptive statistics to summarize the adoption rates of digital marketing tools and their effectiveness. Regression analysis was used to evaluate the relationship between digital marketing adoption and business performance. The data were analyzed using SPSS version 26.

Results

1. Demographic Profile of Participants

The demographic profile of the survey participants is provided in Table 1 below. This table highlights key characteristics such as business sector, size, and location, as well as the participant’s role in the enterprise, providing valuable context for understanding how these factors may influence the adoption and effectiveness of digital marketing strategies.

Table 1: Demographic profile of the participants

Demographic Characteristic	Category	Frequency (n=200)	Percentage (%)
Business Sector	Retail	60	30%
	Manufacturing	50	25%
	Service Industry	40	20%
	Agriculture/Agro-based	30	15%
	Other	20	10%
Business Size	Micro (1-10 employees)	120	60%
	Small (11-50 employees)	50	25%
	Medium (51-200 employees)	30	15%
Location	Urban (Gaya and others)	130	65%
	Semi-Urban (District towns)	50	25%
	Rural (Village-based enterprises)	20	10%
Owner’s Role	Owner	180	90%
	Manager	20	10%
Age of Business	0-5 years	100	50%

	6-10 years	60	30%
	More than 10 years	40	20%
Digital Marketing Adoption	Yes (adopted digital marketing)	150	75%
	No (have not adopted digital marketing)	50	25%
Annual Revenue	Less than ₹10 Lakhs	120	60%
	₹10 Lakhs to ₹50 Lakhs	50	25%
	₹50 Lakhs to ₹1 Crore	30	15%

Source: Survey Data (2023)

Interpretation

The Business Sector category allocates participants according to the industry wherein their small-scaled enterprise (SS-E) operates. Of the 200 owners of the SS-E surveyed, retail businesses are the largest proportion (30%) of the surveyed parties. It shows that there are apparently several retail businesses in Bihar, which can gain a direct consumer-facing model and use digital marketing tools to improve product visibility. 25 percent of the respondents belong to the manufacturing sector, indicating the small-scale production units are also opting for digital marketing to enhance their reach.

The service sector constitutes 20% of the surveyed businesses, showcasing that the services like hospitality, transport, education, etc., are also going online to get more customers. Agriculture and agro based business which is a significant contributor of Bihar economy have 15% respondents showing gradual shift of rural enterprise towards digital marketing. Finally, other sectors constitute 10% of businesses, which indicates the variety of small-scale businesses in the sector.

The survey shows that most SS-Es (60%) in Bihar are micro businesses with fewer than 10 employees, in terms of Business Size. This finding is consistent with overall small enterprises in India where micro businesses happen to be predominant even in states like Bihar. Small enterprises (11-50 workers) contributed 25% of the sample while moderate enterprises (51-200 workers) account for 15%. As operations scale, the region’s small and medium enterprises are taking to advanced digital marketing strategies but micro businesses still form the backbone of Bihar’s entrepreneurship activity.

The location of the surveyed businesses suggests a gap in the digital marketing practice in rural areas. Around 65% of the businesses are located in urban regions, especially Patna, the capital of Bihar having better facilities and internet connectivity in comparison to other regions. The urban businesses are more likely to adopt digital marketing strategies because they easily have access to the resource like internet services and digital literacy and platform to undertake digital marketing campaign. Around one-fourth of the respondents represented semi-urban areas where small enterprises are projecting shift to the digital world but struggling with the frequent cut-off of internet connection along with limited digital skills. Most of the remaining 10% of businesses are located in rural areas. Here internet penetration is still a challenge, and digital marketing adoption is less widespread. Rural businesses are definitely warming up to the idea of using digital platforms to reach bigger markets, despite these challenges.

With respect to Owner’s Role, the survey indicates that 90 percent of respondents are owners of the enterprises, who will provide first-hand inputs on how decisions on digital marketing are taken right at the top. The owners are frequently the major stakeholders. Their experiences and perceptions are critical for understanding the challenges and prospects associated with adopting digital marketing strategies. The remaining 10% of the respondents includes the managers who carry day-to-day operations. The implementation of the digital marketing strategies is an important responsibility of these managers, however, owners decide about its adoption.

The Age of Business category indicates the amount of time that the business has been functioning for which may influence the adopting of digital marketing. According to the study, around 50% of the businesses studied had been in operation for 5 years or less. This means that a large proportion of SS-Es in Bihar are fairly new and may be liberal in adopting modern marketing techniques. Newer businesses are usually more adaptable, iterative, rubbered with digital tools. 30% businesses are 6-10 years old and 20% businesses are older than 10 years. The older businesses may have a stronger customer base from traditional means and further have more resistance in shifting towards digital marketing.

With respect to the adoption of Digital Marketing, the study reveals, 75% of SS-Es of Bihar have adopted one or the other type of digital marketing. Social media marketing is the one most adopted. The finding shows how many small businesses use digital marketing even in regions where digital marketing is not very developed. Nevertheless, 25% of companies have still yet to successfully execute any form of digital marketing strategy due to a lack of knowledge, resource, infrastructure, etc. The Rise of Digital Marketing is more prevalent in urban areas as they are more digitally connected and skilled at using the internet.

The final category is Annual Revenue. Most of the SS-Es in Bihar are reported to be operating with an annual revenue of less than ₹10 lakhs. In fact, 60% of the businesses fall under this category. Small business like these is typical. Most of the small-scale businesses operate on a small scale. However, 25 per cent of businesses earn an annual revenue of ₹10 lakhs to ₹50 lakhs and 15 per cent earn ₹50 lakhs to ₹1 crore. More established businesses may have more capital to spend on digital marketing campaigns, leading to better marketing performance.

2. Digital Marketing Strategy Adoption Rates

The survey results indicate that a significant proportion of SS-Es in Bihar are adopting digital marketing strategies.

Table 2: Adoption rates of various digital marketing tools among SS-Es in Bihar

Digital Marketing Strategy	Usage Rate	Effectiveness (1-5)
Social Media Marketing	85%	4.2
Search Engine Optimization (SEO)	72%	3.9
Email Marketing	55%	3.5
Online Advertising	60%	3.8

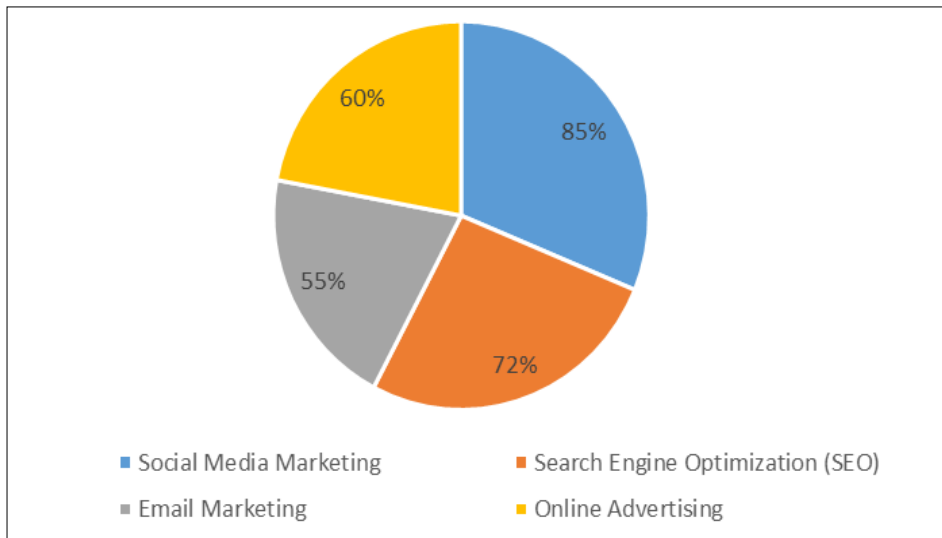


Fig 1: Adoption rates of various digital marketing tools among SS-Es in Bihar.

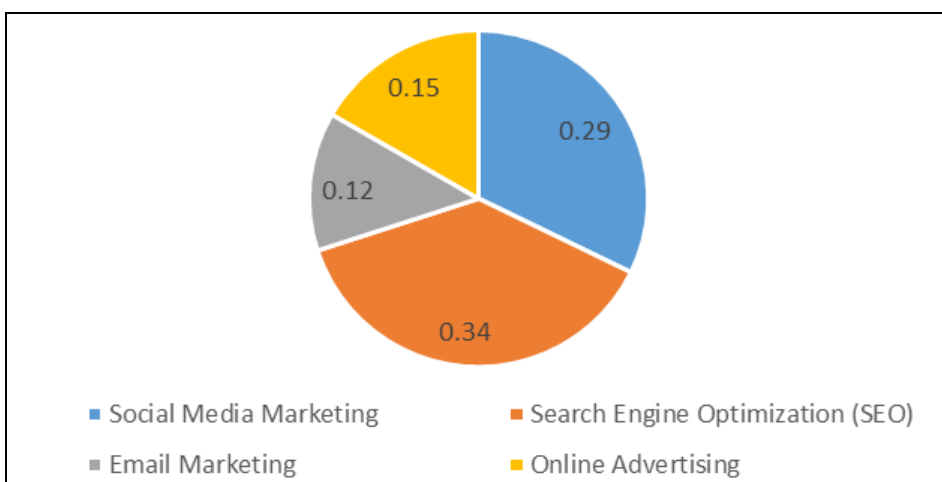
The illustration shows how small scale enterprises use a variety of digital marketing strategies in Bihar. The 2021 [9] marketing strategy that was most frequently adopted overall (85%) and also rated the most effective (4.2/5) is social media marketing, a strong contributor to customer engagement and brand visibility. Search engine optimization (SEO) often comes second, in terms of effectiveness (3.9/5), to the use of business listings (4.2/5). 72 per cent of businesses use SEO.

Online advertising, with 60% adoption and 3.8/5 effectiveness, seems to provide a plus return, though less than expected. In terms of adoption (55%) and effectiveness (3.5/5) email marketing is the least adopted and the least effective tactic likely due to low engagement and poor list segmentation. In short, SS-Es in Bihar use social media and SEO the most while email marketing and online advertising can be improved according to the findings.

Table 3: "Regression Analysis of Digital Marketing Strategies and Their Impact on Business Performance"

Variable	Coefficient (β)	p-value
Social Media Marketing	0.29	0.02
Search Engine Optimization (SEO)	0.34	0.03
Email Marketing	0.12	0.07
Online Advertising	0.15	0.06

Source: SPSS Regression Analysis (2023)



The study used multiple regression analysis to examine the relationship between digital marketing adoption and sales growth. The results indicate that SEO ($\beta = 0.34, p < 0.05$) and Social Media Marketing ($\beta = 0.29, p < 0.05$) were the most significant predictors of increased sales. The regression model shows that businesses that implemented SEO and social media marketing experienced higher sales compared to those who did not.

Discussion

The demographic profile gives us a good insight of small firms in Bihar and their approach to adopt digital marketing. The findings indicate that retail businesses, micro businesses, and urban businesses are more likely to use digital marketing tools. Yet challenges of infrastructure, digital literacy and financial constraints remain, especially in rural areas. By understanding these demographic trends, measures and further recommendations may be developed

or tailored to ensure greater adoption of digital marketing by the small-scale business of Bihar. Addressing these barriers can enhance an inclusive, digitally empowered entrepreneurial ecosystem in Bihar, Create a Strong Bridge of Solution. According to the findings of the study, the digital marketing strategies of SS-Es in Bihar significantly enhance their business performance. Social media marketing and SEO were the most effective digital marketing strategies on business performance. People are realizing the value of social media marketing as its usage has grown rapidly. You can reach a larger audience at a less price using social media marketing. Although only a smaller portion of businesses uses SEO, it boosts sales considerably. Therefore, SS-Es that invest in SEO can benefit considerably.

The aforementioned study also found that SS-E owners' low levels of digital literacy, poor internet infrastructure, and financial constraints posed barriers to digital marketing adoption. "These hindrances restrict the capacity of digital marketing and prohibit businesses from enjoying the full benefits."

Barriers to Digital Marketing Adoption

The primary challenges faced by SS-Es in Bihar include:

- Digital Literacy:** Many business owners lack the knowledge and skills required to effectively use digital marketing tools.
- Infrastructure:** Limited internet connectivity, especially in rural areas, hinders the widespread adoption of digital marketing.
- Financial Constraints:** The high cost of digital advertising campaigns and SEO services limits the ability of small businesses to invest in these tools.

Policy and Practical Implications

- Development of Capacity:** To bridge the digital literacy gap, government and industry players need to invest in training for SS-Es. SS-Es can be empowered with the help of initiatives like Google's Digital Unlocked, which provides free online training to small business owners to assist them to use digital marketing tools.
- Development of the infrastructure:** Rural internet connectivity should be the government's top most priority. Through public-private partnership, broadband access can expand through SS-Es in hinterland areas, which adopt digital marketing.
- Financial rewards:** Micro-grants and other subsidies from the Government for digital marketing campaigns can help SS-Es spend on digital tools without straining their operations.

Conclusion

According to the analysis, digital marketing can help small scale business in Bihar. Social media marketing and SEO are the most effective tools for them. Nonetheless, they continue to face infrastructure bottlenecks, digital literacy gaps, and financial constraints. To leverage the benefits of digital marketing to its fullest, targeted policy interventions and capacity-building initiatives are essential for Bihar's

SS-Es. Making these barriers addressable will create an ecosystem in Bihar.

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