The Linkage Between Marketing Intensity and Firm Performance : A Quantile Regression Approach

Tarun Kumar Soni [1]
Rajeev Sirohi [2]
Divya Singh Jamwal [3]

Abstract

Purpose : This study comprehensively analyzed how marketing intensity affected a firm's performance across various quantiles of profit distributions for Indian manufacturing firms.

Methodology : This study employed a panel quantile regression approach and used a comprehensive dataset comprising financial and marketing performance metrics from a diverse sample of Indian manufacturing sector firms over the past 12 years. This study used several proxies for marketing intensity: the actual expenditure on advertising, promotion, distribution, and pricing. It also controlled for several firm-level controls, including past profitability, leverage, foreign market knowledge, liquidity, and risk.

Findings : The performance of domestic manufacturing enterprises was favorably connected with marketing intensity, as demonstrated by the data. The findings additionally indicated that, after sales promotion expenses, distribution expenditures have the largest positive influence on business success. Furthermore, when analyzing the correlation between company profitability and the various proxies of marketing intensity, we found larger differences in performance across the lower, medium, and higher quantiles.

Practical Implications : The results of this study provided insights into how the relationship between marketing intensity and firm performance changes across different quantiles and whether the results were significantly different for the four parameters of marketing intensity. The results confirmed that the distribution intensity coefficient was larger than the promotion and advertisement intensity coefficients, suggesting that the distribution investment was more impactful than the other two marketing intensity measures.

Originality/Value : This information could aid manufacturing firms in planning their marketing resources and strategies to increase profitability. It could also help decision-makers allocate firm resources more efficiently across different measures of marketing intensity.

Keywords : **marketing intensity, firm performance, manufacturing sector, quantile regression**

Paper Submission Date : December 5, 2023 ; Paper sent back for Revision : February 10, 2024 ; Paper Acceptance Date : March 1, 2024 ; Paper Published Online : April 15, 2024

Numerous studies have been conducted in the literature on the connection between marketing intensity and company performance (Boulding et al., 1994; Jacobson, 1990; Kim & McAlister, 2011; Morgan

[1] *Associate Professor,* FORE School of Management, "Adhitam Kendra" B-18, Qutub Institutional Area, New Delhi - 110 016. (Email : tarun.soni@fsm.ac.in) ; ORCID iD : https://orcid.org/0000-0002-8684-7864
[2] *Assistant Professor (Sr.),* Lal Bahadur Shastri Institute of Management, 11/07 Dwarka Sector 11, Near Metro Station, New Delhi - 110 075. (Email : rajeevsirohi@lbsim.ac.in) ; ORCID iD : https://orcid.org/0009-0000-5784-5002
[3] *Assistant Professor,* School of Business, Faculty of Management, Shri Mata Vaishno Devi University, Katra - 182 320, Jammu and Kashmir. (Email : divyasinghjamwal@gmail.com ; Divya.singh@smvdu.ac.in)
ORCID iD : https://orcid.org/0000-0003-4502-4025

DOI : https://doi.org/10.17010/ijom/2024/v54/i4/173713

et al., 2018). Financial performance and a company's marketing intensity have been positively correlated in the past by research. Our perspective on firm success is multifaceted since it is associated with various factors such as increased sales, profitability, customer value, and so on (Chaithanapat et al., 2022; Endres et al., 2020; Hossain et al., 2022). In the recent past, managers have had to defend the value that these marketing budgets and activities provide, making the connection between marketing intensity and company performance even more crucial. Attempting to close this gap, we investigate the relationship between a company's marketing intensity and sales and profitability. We examine the relationship between a company's marketing intensity and its two main performance proxies, sales and ROA, using theoretical frameworks based on the resource-based view (RBV) and dynamic capacities (DC) theories.

This study uses several proxies for marketing intensity, that is, actual expenditure on advertising, promotion, distribution, and pricing, as reported by firms in their financial statements. It investigates whether marketing intensity has a beneficial effect on business performance using a sizable sample of manufacturing enterprises. Second, we study whether the impact is similar across different profitability and sales levels by adopting a quantile regression approach. Third, we used two alternative measures of firm performance (Sales, ROA) in our models while accounting for firm fixed effects, year effects, and sector-level controls.

Theoretical Framework and Literature Review

This is examined via the lenses of RBV theory and DC theory in earlier research on the financial impact of marketing intensity. A firm's diversity of resources can explain its performance, according to Barney (2021) and Barney et al. (2021). The most important resources for diverse company success are those that are valued, unique, and non-substitutable. However, this theory fails to explain how firm resources are developed and used to attain an advantage over competitors (Alexy et al., 2018; Davcik & Sharma, 2016).

DC theory goes beyond having distinctive resources to take into account a firm's ability to acquire, integrate, and organize resources in the business environment (D'Oria et al., 2021; Pereira & Bamel, 2021). Existing literature shows a positive association between investment in marketing intensity and sales maximization; hence, competencies should be directed toward maximum sales generation (Acikdilli et al., 2022; Morgan et al., 2018; Seifzadeh et al., 2021). We have used different methods of data collection to conceptualize and operationalize marketing capabilities while estimating them using frontier estimation methods, such as stochastic frontier estimation (SFE) or data envelopment analysis (DEA) (Acikdilli et al., 2022; Davcik & Sharma, 2016).

Furthermore, studies examining the relationship between firm profitability and marketing expenditure have yielded inconsistent results. For instance, the study conducted by Buzzell and Gale (1987) demonstrated a negative association between marketing intensity and firm performance. However, subsequent studies by Boulding et al. (1994) and Jacobson (1990) contradicted these earlier findings and identified a strong positive relationship. Harlam and Lodish (1995) conducted a study that revealed a positive impact on sales. Kim and McAlister (2011) found that only when businesses go above a particular level in their advertising efforts did there exist a substantial positive association between advertising spend and firm performance.

Another study by Morgan et al. (2009) highlighted the importance of effective marketing strategies and capabilities in achieving positive firm outcomes. Similarly, Ramani and Srinivasan (2019) found a significant relationship between individual marketing capabilities and manufacturing upgrade performance in the Chinese electronics sector. In the Indian context, Ramani and Srinivasan (2019) established a positive correlation between marketing mix responses and firm performance. Furthermore, Jindal (2020) explored the relationship between advertising expenditures and the survival of bankrupt firms. The study concluded that higher advertising expenditures can enhance the chances of survival for a firm, particularly when suppliers have a significant level of influence.

In summary, previous studies have investigated various indicators of marketing intensity across industries and countries (Yadav, 2017). Many studies have been conducted on the effects of various factors on a firm's marketing mix, including market competition, export orientation (Golovko et al., 2022; Kwon et al., 2023), sales leadership (Markose & Jayachandran, 2009; Shashishekar & Anand, 2019; Vadakkepatt et al., 2021), and domestic rivalry (Jaiswal & Singh, 2006). However, we have emphasized the need for further research on the relationship between market orientation and other marketing-based capabilities (Iyer et al., 2021; Prakash, 2008). Additionally, there is a dearth of extensive studies on transition economies that explore the relationship between marketing capabilities and firm performance across various quantiles of performance (Ramani & Srinivasan, 2019; Tanwar et al., 2021).

Taking this into consideration, we examine the RBV theory, testing whether marketing intensity affects the performance of domestic manufacturing enterprises, specifically focusing on firm performance and marketing intensity. We investigate whether this link remains constant or changes at various profitability levels. In the same context, we hypothesize that this relationship varies because of variations in profitability. Thus, we formulate the following hypotheses:

↳ **H1 :** Marketing intensity of domestic companies has a positive impact on firm performance (measured in terms of ROA and sales).

↳ **H2 :** Marketing intensity has a larger positive effect on firm performance in the upper quantiles of firm performance (measured in terms of ROA and sales).

Methodology

Data

To study the impact of marketing mix reactions on company performance, we leveraged information from the CMIE Prowess database of 1,010 Indian manufacturing enterprises. We collected data on the following between 2010 and 2021: total assets, total sales, earnings before interest, taxes, depreciation, and amortization (EBITDA), expenditures for research and development, advertising, marketing, and distribution expenses incurred by Indian enterprises. Table 1 lists the measurements, data sources, and structures used in this study.

Table 1. ***Variable Definitions***

Construct	Measure	Data Source
Independent Variables		
Advertising Intensity	Advertising spending/Total assets	CMIE Prowess Database
Promotion Intensity	Promotion spending/Total assets	CMIE Prowess Database
Distribution Intensity	Distribution spending/Total assets	CMIE Prowess Database
Pricing Intensity	Rebates and discounts spending/Total assets	CMIE Prowess Database
Dependent Variables		
Firm Performance	EBITDA/Total assets	CMIE Prowess Database
Firm Performance	Sales /Total assets	CMIE Prowess Database
Control Variable (Lagged)		
Size	Log of Total assets	CMIE Prowess Database
Risk	Beta	CMIE Prowess Database
Leverage	Total Debt/Total Assets	CMIE Prowess Database

Liquidity	Cash Flow from Operating Activities/Total Assets	CMIE Prowess Database
Foreign Market Knowledge (FMK)	(Foreign exchange spending + Foreign exchange earnings)/Total Assets	CMIE Prowess Database
R&D Intensity	Research and Development Expenditure/ Total Assets	CMIE Prowess Database

The manufacturing industry's businesses are the main subject of this study. The sample included important sectors like mining, the manufacture of construction equipment, medications and medicines, storage battery production, and processed food manufacturing.

Model and Methods

The following is our main regression model:

$$Fp_{it} = \propto_i + \beta_1 Mktint_{it} + \beta_2 Firm\ Specific\ Control\ Variables_{it-1} + SectorD_i + \acute{r}_t + €_{it} \qquad (1)$$

where $\propto_i$ represents the firm fixed effect and β_1, β_2 are regression coefficients of independent variables, $SectorD_i$ represents the sector dummies taken for different sectors for our sample, $\acute{r}_t$ refers to year-dummy, and $€_{it}$ is the error term in the equation.

In Equation 1, return on assets (ROA) and sales represent firm performance (FP) in our study. On the right-hand side of the equation, different proxies for marketing intensity (advertising, product, promotion, distribution, and pricing) were used as the main independent variables. We further control for firm size, risk, liquidity, leverage, and foreign market knowledge.

Methods

This study examines the relationship between marketing intensity and firm performance variables for a period of 12 years, from 2010 to 2021, using panel fixed effects (FE) estimators. The FE estimator effectively controls for sample firms' unobservable fixed effects. In the second step, we estimate equation (1) using the (QR) developed by Koenker and Bassett (1978).

Analysis and Results

Table 2 presents the results of our panel data analysis for the period between 2010 and 2021. Out of the four main components of marketing intensity, advertising, sales promotion, and distribution are found to be significant and positive ROA. Additionally, the distribution intensity coefficient is higher than the advertising and promotion intensity coefficients, suggesting that distribution expenditure has a bigger influence than the other two proxies for marketing intensity.

These results provide evidence that marketing intensity has a positive effect on firm performance. The relationships with the other control variables, that is, leverage and beta, are negative and significant, whereas, for the previous year, they are profit, foreign market knowledge, liquidity, and size. The coefficient of R&D intensity is positive but not statistically significant.

Table 3 presents the results when sales are considered as a measure of performance. These results are consistent with previous results, as all four indicators of marketing intensity have a significant and positive impact on sales; hence, hypothesis H1 is accepted. These results are similar to the earlier findings of Golovko et al. (2022),

Table 2. ***Marketing Intensity and Firm Performance (ROA as a Proxy) Using the Fixed Effect Model***

	Model 1	Model 2	Model 3	Model 4	Model 5
	ROA	ROA	ROA	ROA	ROA
Advertising Intensity	0.312**				
Promotion Intensity		0.341**			
Pricing Intensity			0.012		
Distribution Intensity				0.419***	
ROA (–1)	0.0397***	0.0399***	0.0380***	0.0387***	0.0404***
Leverage	–0.219***	–0.219***	–0.211***	–0.217***	–0.219***
FMK	0.0400***	0.0393***	0.0370***	0.0350***	0.0403***
Liquidity	0.0142***	0.0143***	0.0942***	0.0135**	0.0145***
Risk	–0.014***	–0.014***	–0.015***	–0.014***	–0.0142***
Size	0.006**	0.006**	0.009***	0.007**	0.005*
R&D Intensity	0.162	0.17	0.158	0.176	0.175
Time Dummy	Y	Y	Y	Y	Y
Sector Dummy	Y	Y	Y	Y	Y
N	8,139	8,139	8,106	8,139	8,139
R^2	0.124	0.124	0.133	0.126	0.123

Notes. * $p<0.10$, ** $p<0.05$, *** $p<0.01$.

Table 3. ***Marketing Intensity and Firm Performance (Sales as a Proxy) Using the Fixed Effect Model***

	Model 6	Model 7	Model 8	Model 9	Model 10
	Sales	Sales	Sales	Sales	Sales
Advertising Intensity	2.881***				
Promotion Intensity		2.229***			
Pricing Intensity			1.238***		
Distribution Intensity				4.465***	
Sales (–1)	0.511***	0.515***	0.517***	0.493***	0.518***
Leverage	–0.117***	–0.117***	–0.119***	–0.101***	–0.117***
FMK	0.406***	0.402***	0.408***	0.360***	0.407***
Liquidity	0.237***	0.242***	0.244***	0.225***	0.244***
Risk	–0.0293***	–0.0274***	–0.0256**	–0.0327***	–0.0257**
Size	–0.160***	–0.163***	–0.167***	–0.150***	–0.167***
R&D Intensity	–0.106	–0.008	0.013	0.060	0.009
Year Dummy	Y	Y	Y	Y	Y
Sector Dummy	Y	Y	Y	Y	Y
N	8,752	8,752	8,752	8,752	8,752
R^2	0.53	0.528	0.526	0.55	0.526

Notes. * $p<0.10$, ** $p<0.05$, *** $p<0.01$.

Jaisinghani and Kanjilal (2019), Jaisinghani et al. (2019), Jindal (2020), Kwon et al. (2023), Markovitch et al. (2020), Ramani and Srinivasan (2019), and Vadakkepatt et al. (2021), which documented a positive relationship

between marketing intensity and firm performance. Furthermore, in the case of control variables, firms' leverage, beta, and size have a significantly negative impact on sales; whereas, foreign market knowledge and liquidity have a significantly positive impact on firm sales.

After establishing the relationship between firm performance and marketing intensity, we test hypothesis H2 to determine whether the relationship between firm performance and marketing intensity varies at different quantiles of firm profitability. The quantile regression results are presented in Tables 4–7. Table 4 shows that advertising intensity has a significant and positive effect on firm performance. The coefficients of advertising intensity are also plotted in Figure 1(a). The value of the 10th quantile is negative (–0.0179). The value is positive and significant for all other quantiles, with a positive effect gradually increasing for firms with higher profitability. However, the value at the 70th quantile is lower than that at the other quantiles. The results show that advertising spending is less efficient in the 10th and 70th quartiles, respectively. The link is positive and significant for all quantiles when it comes to sales marketing expenses (Table 5). However, contrary to advertising intensity, the

Table 4. ***Advertising Intensity and Firm Performance (ROA as a Proxy) Using the Quantile Regression Model***

	(Q10)	(Q20)	(Q30)	(Q40)	(Q50)	(Q60)	(Q70)	(Q80)	(Q90)
Advertising Intensity	–0.0179	0.244***	0.294***	0.360***	0.521***	0.493***	0.193***	0.915***	0.359***
Leverage	–0.206***	–0.146***	–0.122***	–0.111***	–0.118***	–0.115***	–0.104***	–0.092***	–0.104***
FMK	0.00624	0.00473**	0.0218***	0.0176***	0.0286***	0.0276***	0.0268***	0.027***	0.0197***
Liquidity	0.242***	0.222***	0.213***	0.193***	0.178***	0.164***	0.168***	0.128***	0.124***
Risk	–0.0142***	–0.009***	–0.012***	–0.011***	–0.012***	–0.010***	–0.007***	–0.010***	–0.019***
Size	–0.000*	0.000***	0.000	–0.000***	0.000***	–0.001***	–0.003***	0.000***	–0.00***
R&D Int.	0.172**	0.357***	0.376***	0.406***	0.430***	0.796***	0.636***	0.678***	0.480***
N	8,795	8,795	8,795	8,795	8,795	8,795	8,795	8,795	8,795
F	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Notes. * $p<0.10$, ** $p<0.05$, *** $p<0.01$; *Q* indicates quantile.

Figure 1(a). ***Relationship Between Advertising Intensity and Firm Performance Across Different Quantiles***

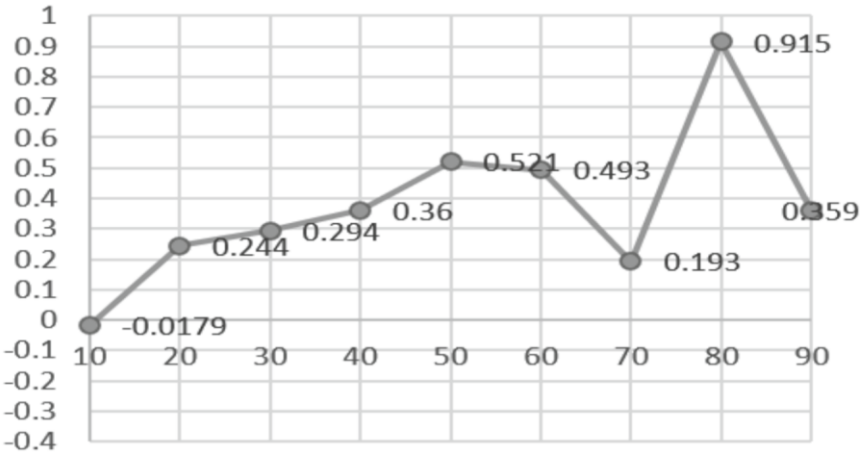
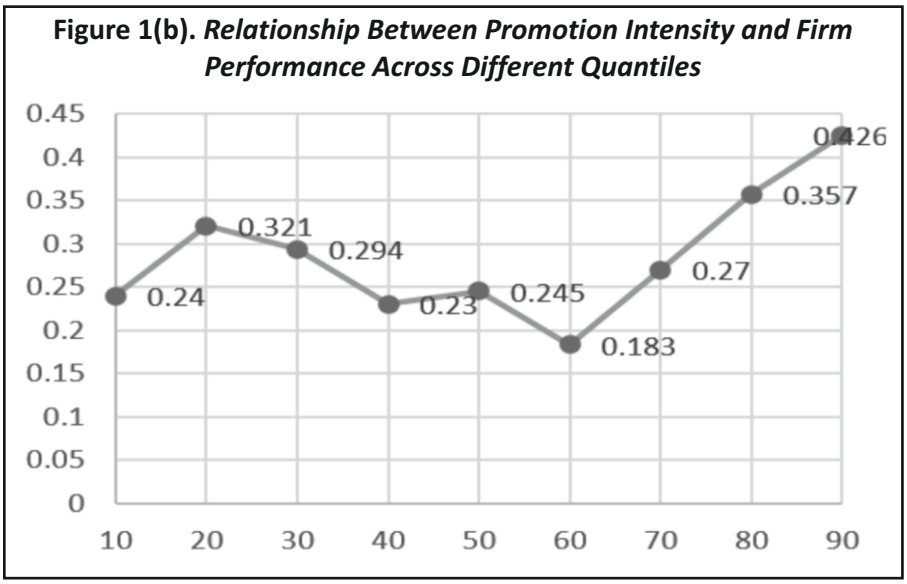


Table 5. ***Promotion Intensity and Firm Performance (ROA as a Proxy) Using the Quantile Regression Model***

	(Q10)	(Q20)	(Q30)	(Q40)	(Q50)	(Q60)	(Q70)	(Q80)	(Q90)
Promotion Intensity	0.240***	0.321***	0.294***	0.230***	0.245***	0.183***	0.270***	0.357***	0.426***
Leverage	–0.209***	–0.153***	–0.136***	–0.129***	–0.124***	–0.136***	–0.126***	–0.123***	–0.108***
FMK	0.009***	0.0105*	0.0205***	0.0149***	0.0298***	0.0272***	0.0230***	0.0240***	0.0281***
Liquidity	0.245***	0.229***	0.213***	0.200***	0.202***	0.182***	0.206***	0.131***	0.121***
Risk	–0.0163***	–0.009***	–0.0146***	–0.009***	–0.0133***	–0.0119***	–0.0126*	–0.0114***	–0.0244***
Size	0.007***	0.007***	0.007***	0.007***	0.0004***	–0.007***	0.0008	–0.0008***	–0.008***
R&D Intensity	0.207***	0.248**	0.270***	0.336***	0.605***	0.369***	0.500***	0.560***	0.449***
N	8,795	8,795	8,795	8,795	8,795	8,795	8,795	8,795	8,795
F	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Notes.* $p<0.10$, ** $p<0.05$, *** $p<0.01$; *Q* indicates quantile.

Figure 1(b). ***Relationship Between Promotion Intensity and Firm Performance Across Different Quantiles***



effect diminishes with an increase in profitability until the 60th quantile. The coefficients of profitability and sales promotion for various quantiles are plotted in Figure 1(b). The coefficients of the lower-, middle-, and higher-level profitable enterprises show notable differences, forming a V-shaped curve.

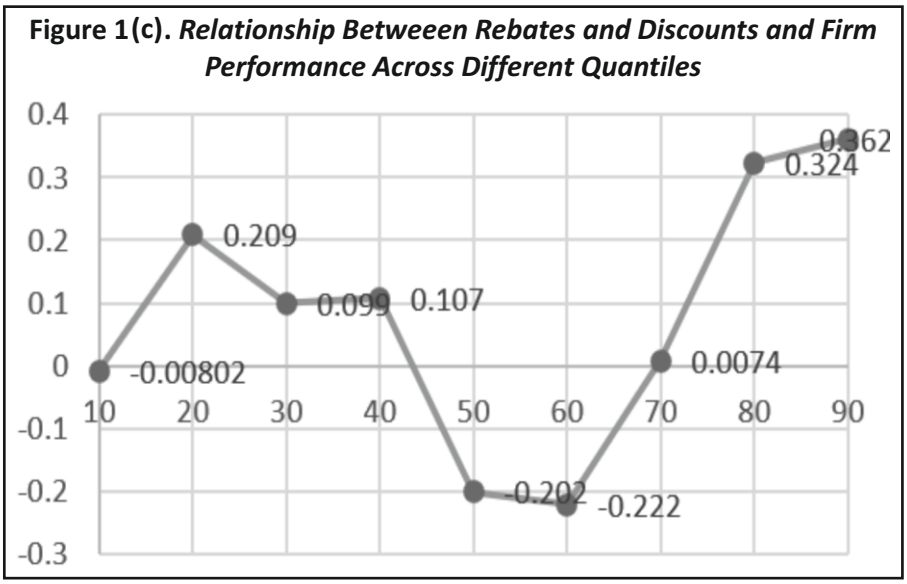
Additionally, it shows that at lower quantiles, the efficiency of sales promotion expenditures first declines as profitability improves, and at higher quantiles, the same increases. The relationship between firm performance and expenditure on rebates and discounts across quantiles is significantly different in the case of pricing intensity, or spending on rebates and discounts (Table 6), where the coefficients of the lower and higher quantiles are positive, and those of the median quantiles are negative. Figure 1(c) shows that rebates and discounts have a detrimental impact on a firm's profitability, as indicated by negative median coefficients. For the extremely successful businesses, this isn't the case, though. In a similar vein, the values of the coefficients for the lower quantiles are lower than those for the upper quantiles, suggesting that discounts and rebates are more effective for extremely successful businesses.

Table 6. ***Pricing Intensity and Firm Performance (ROA as a Proxy) Using the Quantile Regression Approach***

	(Q10)	(Q20)	(Q30)	(Q40)	(Q50)	(Q60)	(Q70)	(Q80)	(Q90)
Pricing Intensity	–0.008	0.209***	0.099***	0.107***	–0.202***	–0.222***	0.007	0.324***	0.362***
Leverage	–0.228***	–0.160***	–0.142***	–0.137***	–0.118***	–0.126***	–0.121***	–0.137***	–0.0746***
FMK	0.009***	–0.004***	0.017***	0.0193***	0.020***	0.0165***	0.0315***	0.0296***	0.0282***
Liquidity	0.203***	0.204***	0.245***	0.240***	0.177***	0.207***	0.100***	0.140***	0.182***
Risk	–0.026***	–0.022***	–0.021***	–0.023***	–0.008***	–0.011***	–0.009***	–0.0166***	–0.0117***
Size	0.0008***	0.0008***	0.0008***	0.0008***	0.0008***	0.0008***	0.0008***	0.0008***	0.0008***
R&D Intensity	0.357***	0.300***	0.296***	0.312***	0.178***	0.356***	0.316***	0.0151	0.549***
N	8,761	8,761	8,761	8,761	8,761	8,761	8,761	8761	8,761
F	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Notes. * $p<0.10$, ** $p<0.05$, *** $p<0.01$; *Q* indicates quantile.

Figure 1(c). ***Relationship Betweeen Rebates and Discounts and Firm Performance Across Different Quantiles***



In the case of distribution intensity (Table 7), the relationship is also positive and significant across all quantiles. As reflected in Figure 1(d), similar to expenditures on sales promotion and distribution expenses, the coefficient values decrease with an increase in firms' profitability, except for the 80th quantile.

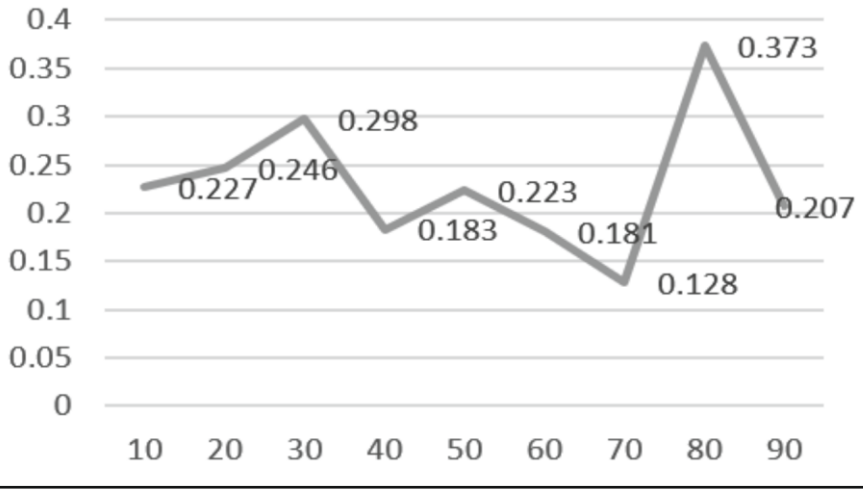
Overall, we observe that the four independent variables have a significant impact on firm performance and hence hypothesis H2 is accepted. If we consider the median quantile coefficient values, advertising expenditure has the highest positive impact on firm performance, followed by expenditure on sales promotions. The median coefficient of the distribution expenditure is positive and significant. In contrast, the median coefficient is negative in the case of expenditures on rebates and discounts. Furthermore, we observe certain commonalities while studying the coefficients at different quantiles for our four variables. The quantiles are the lowest at the 10th quantile for all four variables. Furthermore, we observe greater disparities across the lower, middle, and higher quantiles. Interestingly, the higher quartile coefficients display a higher sensitivity to changes in the proxies of the marketing mix.

Table 7. ***Distribution Intensity and Firm Performance (ROA as a Proxy) Using the Quantile Regression Approach***

	(Q10)	(Q20)	(Q30)	(Q40)	(Q50)	(Q60)	(Q70)	(Q80)	(Q90)
Distribution Intensity	0.227***	0.246***	0.298***	0.183***	0.223***	0.181***	0.128***	0.373***	0.207***
Leverage	–0.19***	–0.157***	–0.131***	–0.12***	–0.124***	–0.087***	–0.109***	–0.112***	–0.079***
FMK	0.005	0.0146***	0.007***	0.015***	0.025***	0.0251***	0.0220***	0.0296***	0.0200***
Liquidity	0.225***	0.207***	0.200***	0.185***	0.154***	0.181***	0.176***	0.0790***	0.122***
Risk	–0.01***	–0.008***	–0.012***	–0.01***	–0.009***	–0.009***	–0.008***	–0.009***	–0.040***
Size	–0.00	–0.00	–0.00	0.009**	–0.00	–0.00***	0.00***	0.00***	–0.00***
R&D Intensity	0.246***	0.404***	0.289***	0.174**	0.574***	0.741***	0.449***	0.779***	0.788***
N	8,795	8,795	8,795	8,795	8,795	8,795	8,795	8,795	8,795
F	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Notes. * $p<0.10$, ** $p<0.05$, *** $p<0.01$; *Q* indicates Quantile.

Figure 1(d). ***Relationship Between Distribution Intensity and Firm Performance Across Different Quantiles***



Managerial and Theoretical Implications

This study examines the link between the marketing intensity of domestic manufacturing firms and their impact on sales and profitability. The results demonstrate a positive relationship between the performance of domestic manufacturing enterprises and their marketing intensity. These findings align with previous studies that have shown a positive link between various marketing intensity metrics and firm performance (Golovko et al., 2022; Jaisinghani et al., 2019; Jaisinghani & Kanjilal, 2019; Johnson & Thomas, 2018; Kwon et al., 2023; Markovitch et al., 2020; Shetty & Basri, 2017; Vadakkepatt et al., 2021).

The quantile regression approach yields different findings at different profitability levels. The notable variation amongst lower quantiles can be explained by the fact that less lucrative domestic enterprises possess lower levels of experience and capital. Another likely reason is that marketing intensity has decreased as a result of

budgetary restraints brought on by previous periods of low profitability. In addition, the results show that the distribution intensity coefficient is larger than the promotion and advertisement intensity coefficients, suggesting that distribution investment is more influential than the other two marketing intensity measures.

According to the findings, to keep up with changing marketing dynamics, domestic enterprises need to put greater resources into their channels of distribution. Domestic businesses can take advantage of their extensive knowledge of regional trade partners and distribution networks to improve overall performance. Utilizing this information will help dissemination efforts (Arora et al., 2018; Ramani & Srinivasan, 2019). These findings are consistent with the RBV paradigm, which highlights the importance of company-level resource heterogeneity in understanding business performance.

Research Limitations and Future Directions

This study sheds light on the effect of four critical aspects of marketing intensity on sales and profitability by drawing on previous research on the RBV theory, marketing intensity, and company performance. Additionally, the findings highlight that the relationship differs across different degrees of profitability. By examining the marketing intensity of manufacturing firms in an emerging economy, this study contributes to our understanding of its nature and characteristics. Nonetheless, this investigation can be advanced by exploring avenues for future research. First, it should be noted that this study assumes uniformity across India's various manufacturing industries. As a result, the findings may differ across different subsectors of this sector, explaining why it is possible to investigate differences among sectors.

Furthermore, this problem might be resolved and country comparisons made easier by carrying out a cross-country empirical study that uses data from several emerging nations. It would be fascinating to investigate how other macroeconomic factors, such as technical advancement and innovation at the county level, affect the relationship between marketing intensity and company performance. Finally, we used secondary data from our research. Further studies would benefit substantially by integrating the primary data gathered through surveys to check the robustness of the results.

Authors' Contribution

Dr. Tarun Kumar Soni conceived the idea and developed the quantitative design to undertake the empirical study. Dr. Divya Singh Jamwal extracted research papers with high repute, filtered these based on keywords, and generated concepts and codes relevant to the study design. Dr. Rajeev Sirohi verified the analytical methods and supervised the study. The numerical computations were done by Tarun Kumar Soni using Gretl software. Dr. Tarun Kumar Soni wrote the manuscript in consultation with both the authors.

Conflict of Interest

The authors certify that they have no affiliations with or involvement in any organization or entity with any financial interest, or non-financial interest in the subject matter, or materials discussed in this manuscript.

Funding Acknowledgement

The infrastructural support provided by the FORE School of Management, New Delhi, in completing this study is greatly acknowledged.

References

Acikdilli, G., Mintu-Wimsatt, A., Kara, A., & Spillan, J. E. (2022). Export market orientation, marketing capabilities and export performance of SMEs in an emerging market: A resource-based approach. *Journal of Marketing Theory and Practice, 30*(4), 526–541. https://doi.org/10.1080/10696679.2020.1809461

Alexy, O., West, J., Klapper, H., & Reitzig, M. (2018). Surrendering control to gain advantage: Reconciling openness and the resource-based view of the firm. *Strategic Management Journal, 39*(6), 1704–1727. https://doi.org/10.1002/smj.2706

Arora, T., Agarwal, B., & Kumar, A. (2018). A study of millennials's preferences for social media advertising in Delhi NCR. *Indian Journal of Marketing, 48*(10), 34–51. https://doi.org/10.17010/ijom/2018/v48/i10/132334

Barney, J. B. (2021). The emergence of resource-based theory: A personal journey. *Journal of Management, 47*(7), 1663–1676. https://doi.org/10.1177/01492063211015272

Barney, J. B., Ketchen Jr., D. J., & Wright, M. (2021). Resource-based theory and the value creation framework. *Journal of Management, 47*(7), 1936–1955. https://doi.org/10.1177/01492063211021655

Boulding, W., Lee, E., & Staelin, R. (1994). Mastering the mix: Do advertising, promotion, and sales force activities lead to differentiation? *Journal of Marketing Research, 31*(2), 159–172. https://doi.org/10.1177/002224379403100202

Buzzell, R. D., & Gale, B. T. (1987). *The PIMS principles: Linking strategy to performance*. Simon and Schuster.

Chaithanapat, P., Punnakitikashem, P., Khin Khin Oo, N. C., & Rakthin, S. (2022). Relationships among knowledge-oriented leadership, customer knowledge management, innovation quality and firm performance in SMEs. *Journal of Innovation & Knowledge, 7*(1), 100162. https://doi.org/10.1016/j.jik.2022.100162

Davcik, N. S., & Sharma, P. (2016). Marketing resources, performance, and competitive advantage: A review and future research directions. *Journal of Business Research, 69*(12), 5547–5552. https://doi.org/10.1016/j.jbusres.2016.04.169

D'Oria, L., Crook, T. R., Ketchen, D. J., Sirmon, D. G., & Wright, M. (2021). The evolution of resource-based inquiry: A review and meta-analytic integration of the strategic resources–actions–performance pathway. *Journal of Management, 47*(6), 1383–1429. https://doi.org/10.1177/0149206321994182

Endres, H., Helm, R., & Dowling, M. (2020). Linking the types of market knowledge sourcing with sensing capability and revenue growth: Evidence from industrial firms. *Industrial Marketing Management, 90*, 30–43. https://doi.org/10.1016/j.indmarman.2020.06.004

Golovko, E., Lopes-Bento, C., & Sofka, W. (2022). Marketing learning by exporting – how export-induced marketing expenditures improve firm performance. *Journal of Business Research, 150*, 194–207. https://doi.org/10.1016/j.jbusres.2022.06.015

Harlam, B. A., & Lodish, L. M. (1995). Modeling consumers' choices of multiple items. *Journal of Marketing Research, 32*(4), 404–418. https://doi.org/10.1177/002224379503200403

Hossain, M. A., Agnihotri, R., Rushan, M. R., Rahman, M. S., & Sumi, S. F. (2022). Marketing analytics capability, artificial intelligence adoption, and firms' competitive advantage: Evidence from the manufacturing industry. *Industrial Marketing Management, 106*, 240–255. https://doi.org/10.1016/j.indmarman.2022.08.017

Iyer, P., Davari, A., Srivastava, S., & Paswan, A. K. (2021). Market orientation, brand management processes and brand performance. *Journal of Product & Brand Management, 30*(2), 197–214. https://doi.org/10.1108/JPBM-08-2019-2530

Jacobson, R. (1990). Unobservable effects and business performance. *Marketing Science, 9*(1), 74–85. https://doi.org/10.1287/mksc.9.1.74

Jaisinghani, D., & Kanjilal, K. (2019). Marketing investments and firm performance in manufacturing sector: A panel threshold model for China. *Journal of the Asia Pacific Economy, 24*(1), 117–126. https://doi.org/10.1080/13547860.2018.1554617

Jaisinghani, D., Kaur, H., Goyal, J., & Joshi, M. (2019). Marketing intensity and persistence of firm performance: Empirical evidence from Indonesia. *International Journal of Productivity and Performance Management, 69*(6), 1109–1127. https://doi.org/10.1108/IJPPM-02-2019-0072

Jaiswal, K. S., & Singh, N. (2006). The paradigm shift in marketing- Case studies. *Indian Journal of Marketing, 36*(5). https://www.geosocindia.org/index.php/ijom/article/view/34319

Jindal, N. (2020). The impact of advertising and R&D on bankruptcy survival: A double-edged sword. *Journal of Marketing, 84*(5), 22–40. https://doi.org/10.1177/0022242920936205

Johnson, J., & Thomas, T. (2018). What is beautiful is good: An evaluation of effectiveness of attractiveness in celebrity endorsements. *Indian Journal of Marketing, 48*(8), 24–36. https://doi.org/10.17010/ijom/2018/v48/i8/130538

Kim, M., & McAlister, L. M. (2011). Stock market reaction to unexpected growth in marketing expenditure: Negative for sales force, contingent on spending level for advertising. *Journal of Marketing, 75*(4), 68–85. https://doi.org/10.1509/jmkg.75.4.68

Koenker, R., & Bassett, Jr., G. (1978). Regression quantiles. *Econometrica, 46*(1), 33–50. https://doi.org/10.2307/1913643

Kwon, H.-B., Lee, J., & Choi, L. (2023). Exploring the synergy between R&D and advertising and firm performance: A neural network approach. *Benchmarking: An International Journal*, *30*(5), 1672–1694. https://doi.org/10.1108/BIJ-11-2020-0605

Markose, B., & Jayachandran, S. (2009). The relevance of personal selling in today's marketing scenario-A theoretical perspective. *Indian Journal of Marketing, 39*(7), 3–8. https://www.geosocindia.org/index.php/ijom/article/view/36996

Markovitch, D. G., Huang, D., & Ye, P. (2020). Marketing intensity and firm performance: Contrasting the insights based on actual marketing expenditure and its SG&A proxy. *Journal of Business Research, 118*, 223–239. https://doi.org/10.1016/j.jbusres.2020.06.032

Morgan, N. A., Feng, H., & Whitler, K. A. (2018). Marketing capabilities in international marketing. *Journal of International Marketing, 26*(1), 61–95. https://doi.org/10.1509/jim.17.0056

Morgan, N. A., Slotegraaf, R. J., & Vorhies, D. W. (2009). Linking marketing capabilities with profit growth. *International Journal of Research in Marketing, 26*(4), 284–293. https://doi.org/10.1016/j.ijresmar.2009.06.005

Pereira, V., & Bamel, U. (2021). Extending the resource and knowledge based view: A critical analysis into its theoretical evolution and future research directions. *Journal of Business Research, 132*, 557–570. https://doi.org/10.1016/j.jbusres.2021.04.021

Prakash, R. (2008). The role of women in advertisements. *Indian Journal of Marketing, 38*(3), 3–6.

Ramani, N., & Srinivasan, R. (2019). Effects of liberalization on incumbent firms' marketing-mix responses and performance: Evidence from a quasi-experiment. *Journal of Marketing, 83*(5), 97–114. https://doi.org/10.1177/0022242919860085

Seifzadeh, M., Salehi, M., Abedini, B., & Ranjbar, M. H. (2021). The relationship between management characteristics and financial statement readability. *EuroMed Journal of Business, 16*(1), 108–126. https://doi.org/10.1108/EMJB-12-2019-0146

Shashishekar, M. S., & Anand, S. (2019). The impact of proficiency of marketing activities and value proposition innovation on new intelligent products' performance. *Indian Journal of Marketing, 49*(12), 7–20. https://doi.org/10.17010/ijom/2019/v49/i12/149107

Shetty, A., & Basri, S. (2017). Sales behavioral intentions of distribution channels in the insurance industry: A systematic review. *Indian Journal of Marketing, 47*(12), 19–35. https://doi.org/10.17010/ijom/2017/v47/i12/119899

Tanwar, A. S., Chaudhry, H., & Srivastava, M. K. (2021). Influencer marketing as a tool of digital consumer engagement: A systematic literature review. *Indian Journal of Marketing, 51*(10), 27–42. https://doi.org/10.17010/ijom/2021/v51/i10/166439

Vadakkepatt, G., Shankar, V., & Varadarajan, R. (2021). Should firms invest more in marketing or R&D to maintain sales leadership? An empirical analysis of sales leader firms. *Journal of the Academy of Marketing Science, 49*, 1088–1108. https://doi.org/10.1007/s11747-021-00774-2

Yadav, M. (2017). Social media as a marketing tool: Opportunities and challenges. *Indian Journal of Marketing, 47*(3), 16–28. https://doi.org/10.17010/ijom/2017/v47/i3/111420

About the Authors

Tarun Kumar Soni has more than 12 years of experience as a teacher and researcher. He holds a doctorate in finance from the Arun Jaitley National Institute of Financial Management, Ministry of Finance. He has collaborated on public policy matters with prominent organizations and think tanks such as the Prime Minister's Office, the Ministry of Finance, and Niti Aayog. His research publications have appeared in journals classified by the ABDC and Scopus, demonstrating his passion for research.

Rajeev Sirohi serves as an Assistant Professor at Lal Bahadur Shastri Institute of Management in India, bringing over 18 years of expertise in both teaching and research. He has a Ph.D. from Gautam Buddha University and has notably contributed to the fields of services marketing and retail through publications in esteemed ABDC-listed journals.

Divya Singh Jamwal is an Assistant Professor at the School of Business, Faculty of Management, Shri Mata Vaishno Devi University in Katra, Jammu and Kashmir, India. She has a strong background in academia, having earned a Ph.D., an MBA in Business Economics, a BBA, and a UGC-NET. Her areas of specialization include marketing & financial management, strategic management, and solid waste management.