

Small Firms and Platforms

Nishant Chadha Viswanath Pingali Daniel Sokol

Motivation

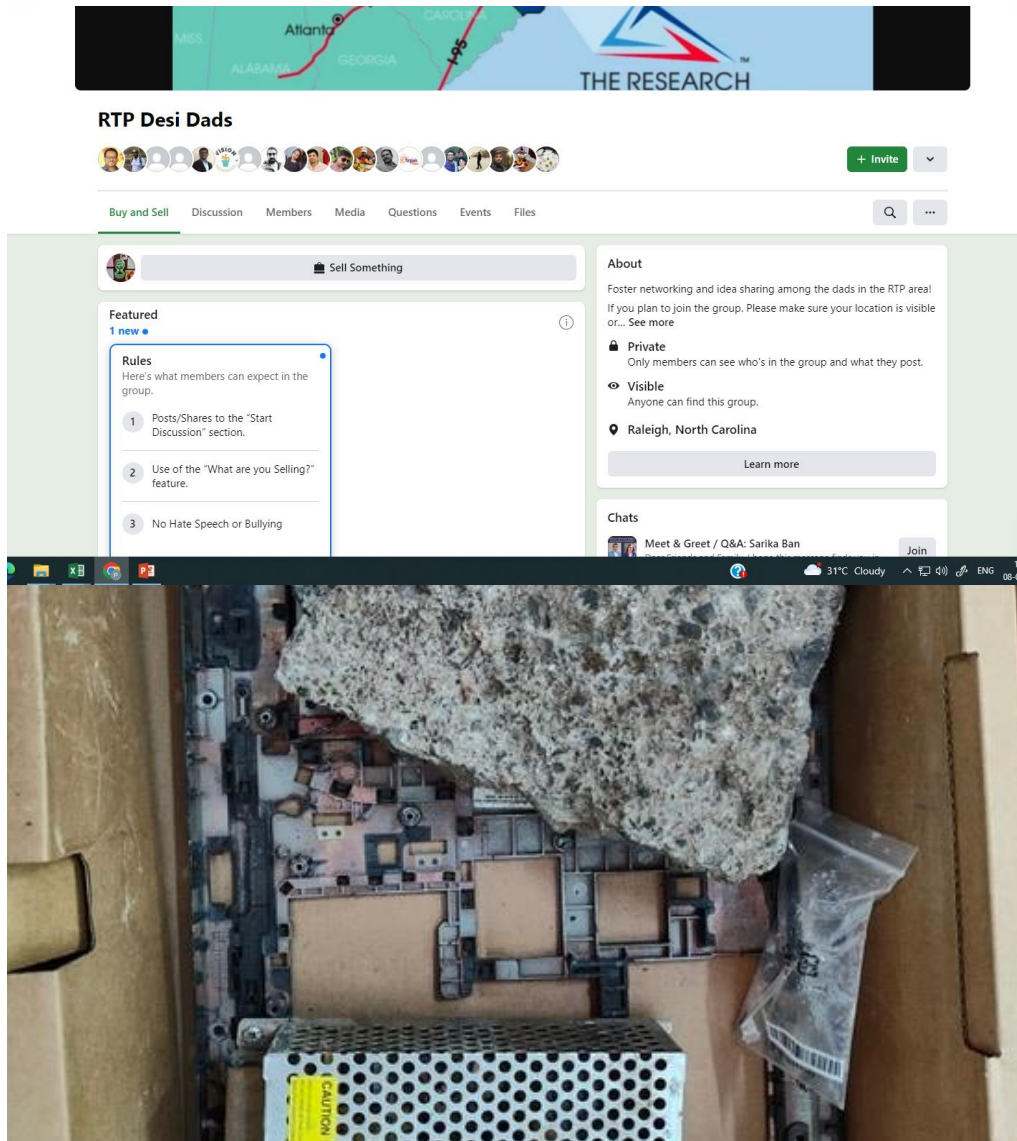


Fixed costs are significant determinants in entry decisions of firms, especially when there is a well-established incumbent (Tirole, 1995)

- Advertising expenditure/discovery by customers
- Overcoming information asymmetry
- Logistics for sales

For the Hindi Challenged:
“No advertisement, no sale!”

Motivation



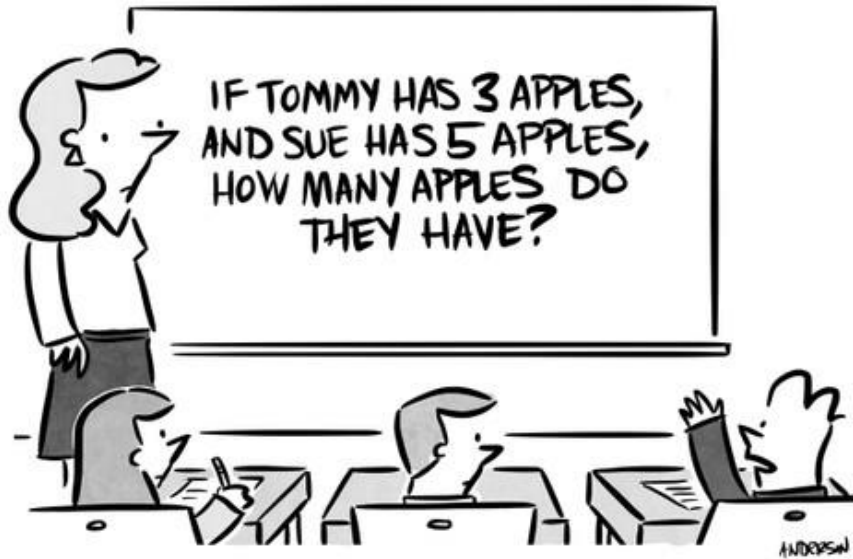
Platforms facilitate:

- Discovery by potential customers even for niche products – long tails (Goldfarb and Tucker, 2019)
- Mitigating the problem of information asymmetry and developing faith in the product (Spulber, 2018)
- Reducing logistics costs (Hyakawa and Mukunoki, 2023)

In short, platforms allow firms to convert fixed costs into *quasi variable costs*

Research Questions

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"OK, first things first - how many kids are just walking around with multiple apples?"

Do small firms leverage platforms/digital technologies to locate and serve niche markets?

- Does using platforms allow small firms to reach geographically more diverse markets?

What are small firms' strategies in how they use platforms?

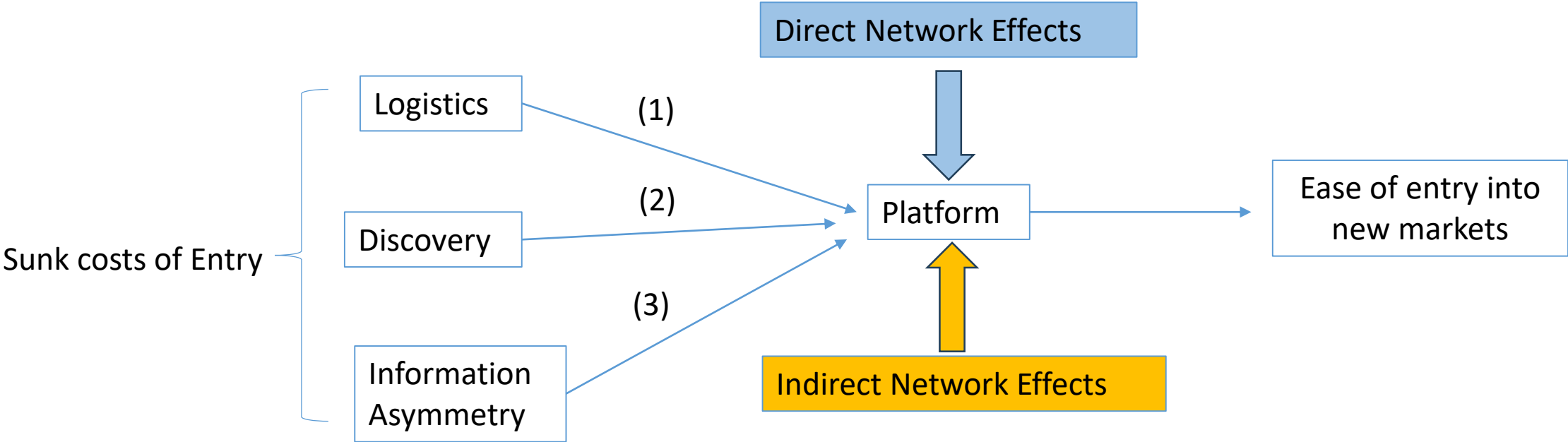
- Do they look at a single platforms or multiple platforms?
- Do they stick to the established platforms or any emerging platforms as well?

Broad Research Areas



- Competition among platforms (Cannemo, 2021; Armstrong and Wright, 2006)
- Entrepreneurs and platform usage strategies (Srinivasan & Venkataraman, 2017)
- Emerging markets and platform usage (Shankar & Narang, 2020)
- Entry into platform markets (Zhu & Iansiti, 2011)
- Resources for entrepreneurs (Cloug, Fang, Vissa & Wu, 2019)

Theoretical Framework



Methods and Data



"I already wrote the paper. That's why it's so hard to get the right data."

This is a mixed methods paper

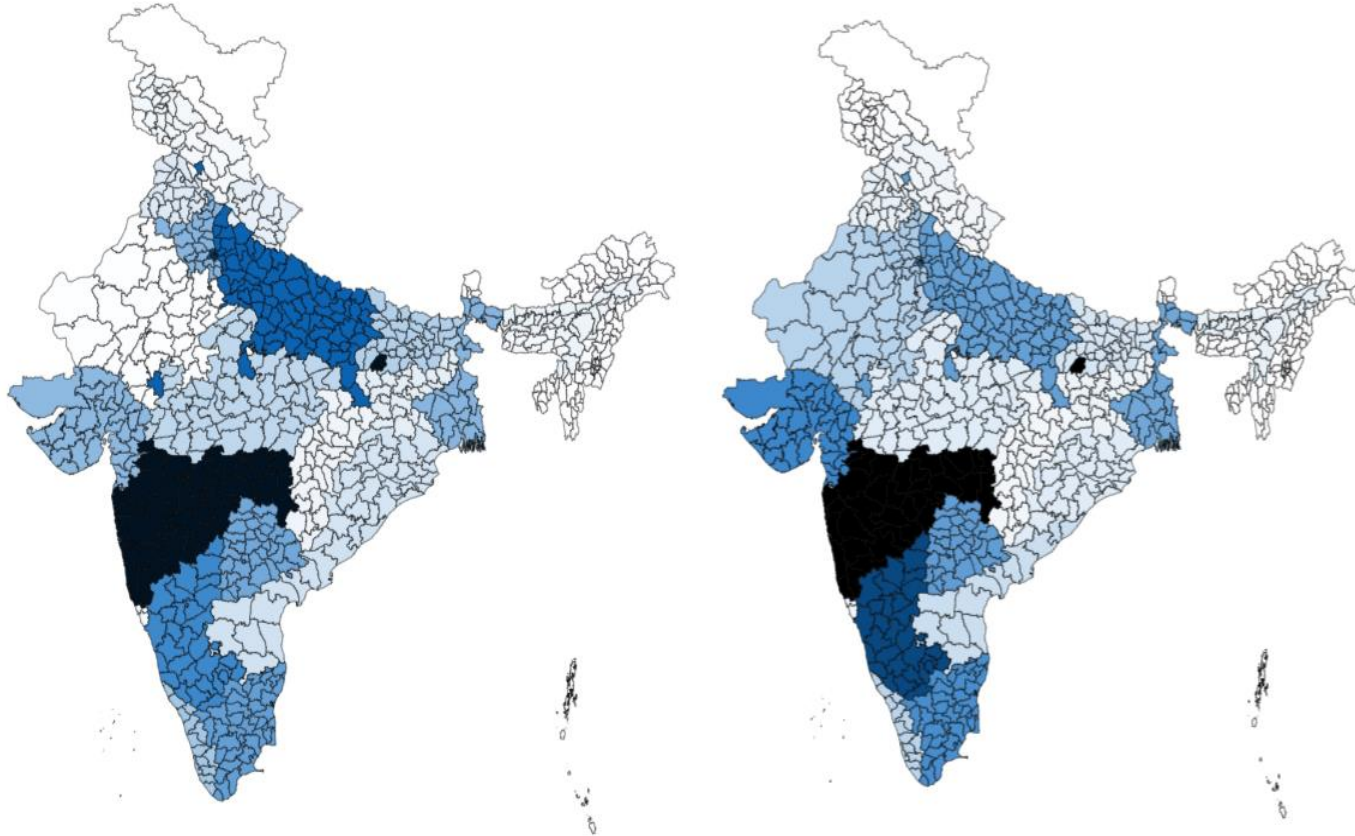
- Online large sample survey
- In-depth discussions with a subsample

Online large sample survey

- Email survey
- About 4,59,000 survey invites mailed
- List constructed from all firms registered with the MCA between 2016 – 2023 in select sectors
- Number of responses: 1438 (0.3% response rate)

In-depth interviews with ten small Indian firms

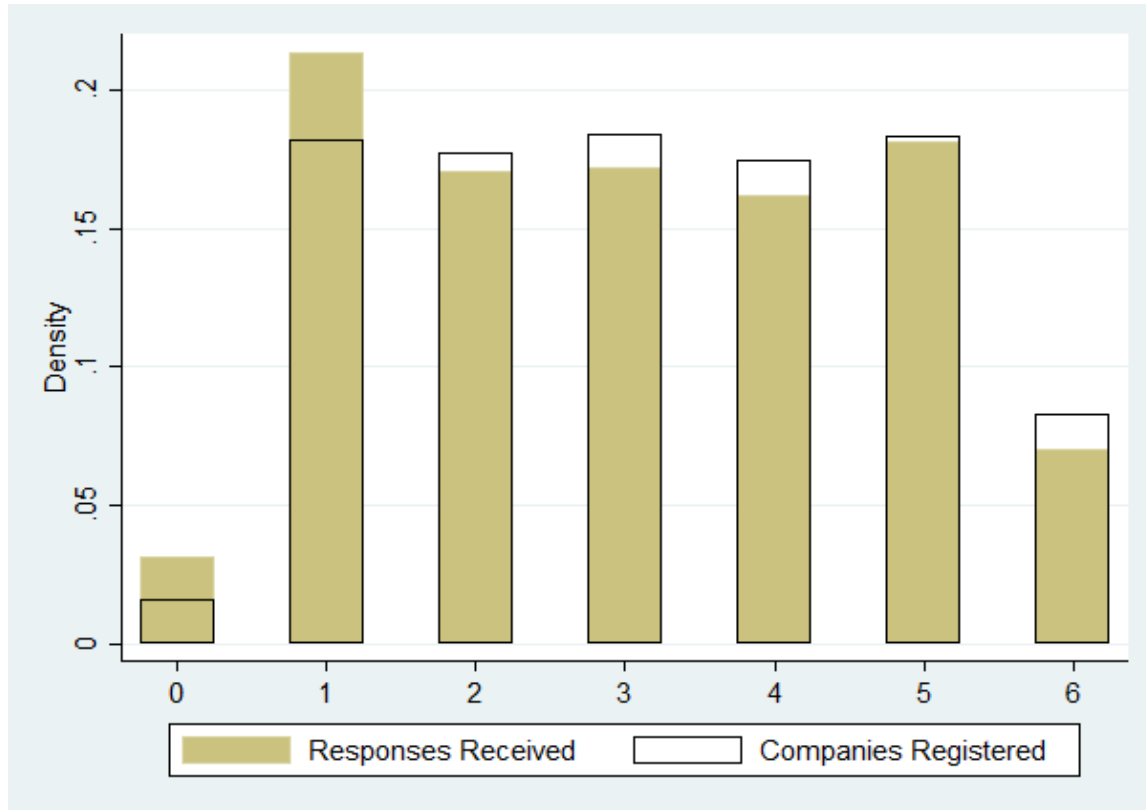
Survey Respondents



Correlation between the geographical spread of registrations and responses is 91%

State	Companies registered	Responses received
Andaman and Nicobar Islands	0.04%	0.13%
Andhra Pradesh	1.91%	2.24%
Arunachal Pradesh	0.04%	0.00%
Assam	0.73%	0.92%
Bihar	3.12%	1.72%
Chandigarh	0.41%	0.66%
Chhattisgarh	0.65%	0.53%
Dadra and Nagar Haveli; Daman and Diu	0.04%	0.13%
Delhi	11.95%	7.39%
Goa	0.33%	0.66%
Gujarat	4.67%	8.31%
Haryana	4.89%	3.56%
Himachal Pradesh	0.39%	0.66%
Jammu and Kashmir	0.49%	0.13%
Jharkhand	1.08%	0.79%
Karnataka	7.96%	13.72%
Kerala	3.71%	2.90%
Ladakh	0.01%	0.00%
Lakshadweep	0.00%	0.00%
Madhya Pradesh	2.60%	1.32%
Maharashtra	18.89%	20.71%
Manipur	0.15%	0.00%
Meghalaya	0.39%	0.13%
Mizoram	0.02%	0.13%
Nagaland	0.04%	0.13%
Odisha	1.72%	1.32%
Puducherry	3.41%	0.13%
Punjab	1.38%	0.92%
Rajasthan	0.07%	3.03%
Sikkim	0.00%	0.00%
Tamil Nadu	6.42%	7.78%
Telangana	5.82%	6.73%
Tripura	0.08%	0.00%
Uttar Pradesh	10.73%	6.60%
Uttarakhand	0.94%	0.53%
West Bengal	4.91%	6.07%

Survey Respondents



Age density plot

	Observations	Mean age (in years)
Companies registered	459434	3.20
Responses received	820	3.04

Understanding the Sample: Firm Characteristics

Sector of operation	No. of responses	% of sample
D2C channel	116	11.23
Manufacturing	187	18.10
Services	74	57.21
Retail trade	591	7.16
Wholesale trade	65	6.29
Total	1033	100

Predominantly small firms

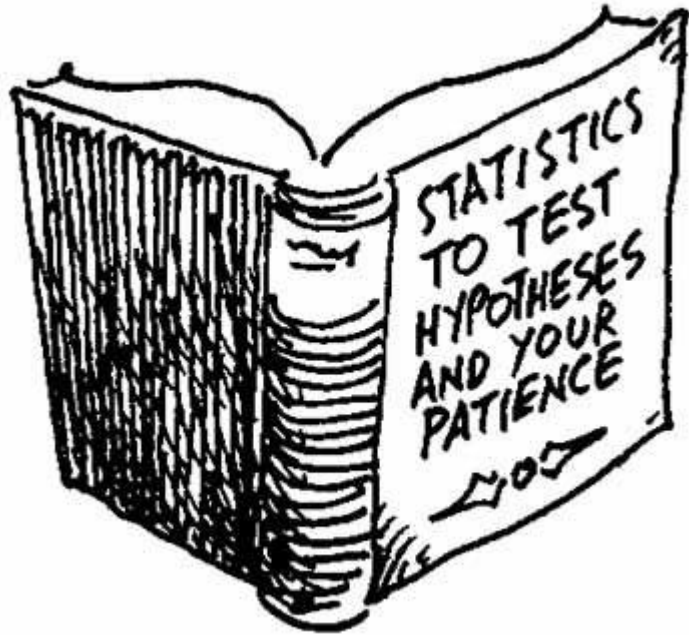
- Turnover less than INR 10 Million (59% of the sample)
- Turnover less than INR 50 Million (82% of the sample)

About 23% firms in the sample export

An average firm sells in around 1.5 regions out of 4 in India

Understanding the Sample: Digital Presence

Activity	Observations	% of sample
Advertise digitally	1335	75.96
Have a website	1206	81.26
Sell online	1198	52.34



Results

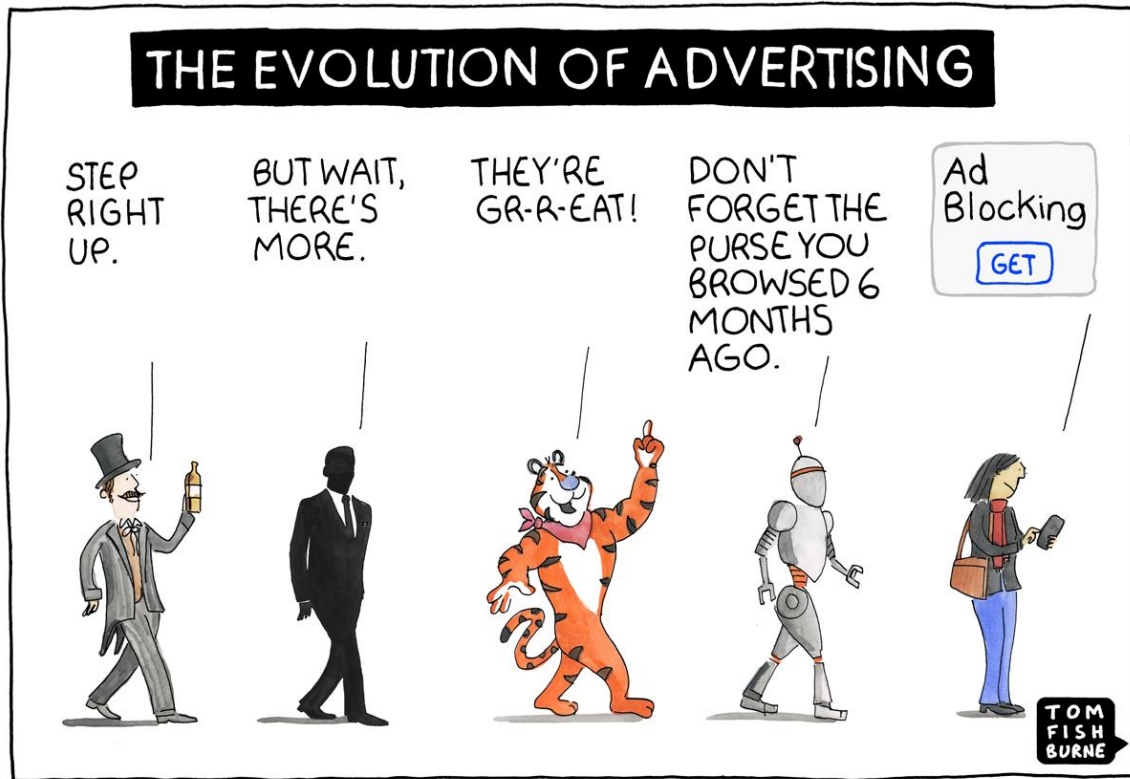
Small Firms Advertise More Digitally

Firm size	Total number of respondents	% advertising digitally	% advertising conventionally	Difference
Less than 10 million	637	78	56	22
Between 10 and 50 million	254	73	60	13
Between 50 and 100 million	65	78	60	18
Over 100 million	133	80	67	13

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Conventional Advertising Strategies Differ by the Size of the Firm



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	Radio	TV	Pamphlets	Newspaper	Physical display	Kiosks/ Events
Full sample	5.26	4.79	30.87	18.85	20.10	21.60
Small	3.94	2.83	31.65	16.69	17.58	20.47
Medium	5.33	5.02	29.15	19.44	21.56	21.00
Large	9.09	10.61	30.30	29.55	28.58	36.36

For reaching larger audience with limited resources, digital advertising seems to be more appealing, especially for the smaller firms

Firms Use Multiple Channels for Advertising

- Social media is the dominant form of advertising
 - Not all of it is paid advertising
 - Small firms push content organically leveraging direct network effects (qualitative survey)
 - Median channels is 2 and mean is 2.25. Larger firms use more channels
 - Smaller firms rely more on social media than larger firms

Advertising channel	% of respondents
E-commerce ads	16.53
Social media	85.14
Email marketing	46.05
Performance marketing	53.20

Sample size: 1077

Firms Multihome on Social Media

- Firms use multiple social media platforms for advertising
- Multihoming is not just among the major players, but also between the established and nascent platforms
- Median number of platforms is 2 and mean is 2.4

Platform	% of respondents
Facebook	72.61
Instagram	65.37
Twitter	21.26
YouTube	36.77
LinkedIn	17.46
WhatsApp	4.82
Other	4.83

Sample size: 1077

Firms Multihome for Sales

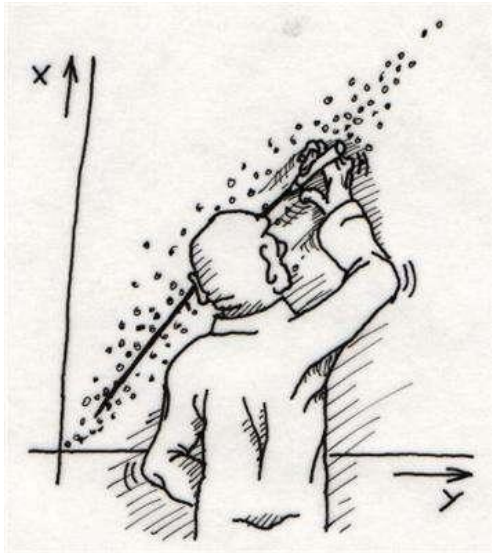
- Firms use multiple platforms for their sales
- Firms prefer their own websites over platforms for sales
- The median number of platforms used is 1 and the mean is 2

		E-commerce sales	
		Yes	No
Website sales	Yes	24.36	30.86
	No	4.64	40.14

Platform	% of firms using e-commerce
Amazon	55.30
Flipkart	39.83
Myntra	12.32
Meesho	14.90
Social media	45.56
Others	24.36

Small firms are reaching larger audience
digitally and are selling more digitally

Small Firms Which Are Digitally Present Serve Larger Geographies in India

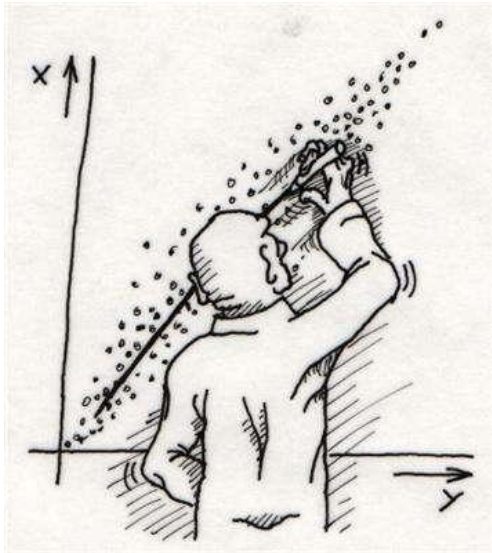


VARIABLES	(1) regions	(2) regions	(3) regions	(4) regions	(5) regions	(6) regions	(7) regions	(8) regions
Ads digitally	0.230*** (0.0691)	0.229*** (0.0681)			0.120* (0.0715)	0.115 (0.0706)	0.00404 (0.0831)	0.00119 (0.0823)
Online sales			0.310*** (0.0627)	0.322*** (0.0619)	0.275*** (0.0648)	0.288*** (0.0642)	-0.0640 (0.140)	-0.0429 (0.138)
Ads and sales							0.410*** (0.158)	0.401*** (0.155)
Turnover		0.157*** (0.0354)		0.161*** (0.0349)		0.161*** (0.0349)		0.160*** (0.0350)
Constant	1.230*** (0.0579)	0.960*** (0.0764)	1.240*** (0.0402)	0.956*** (0.0652)	1.165*** (0.0601)	0.886*** (0.0774)	1.237*** (0.0655)	0.957*** (0.0834)
Observations	1,089	1,089	1,085	1,085	1,085	1,085	1,085	1,085
R-squared	0.008	0.032	0.021	0.046	0.023	0.048	0.028	0.052

Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

$$Y_i = \beta_0 + \beta_1 \text{Digitaladvertising}_i + \beta_3 \text{ecommerce}_i + \beta_2 \text{Turnover}_i + \beta_4 \text{adsXsales} + \epsilon_i$$

Small Firms Which Are Digitally Present Serve Larger Geographies in India

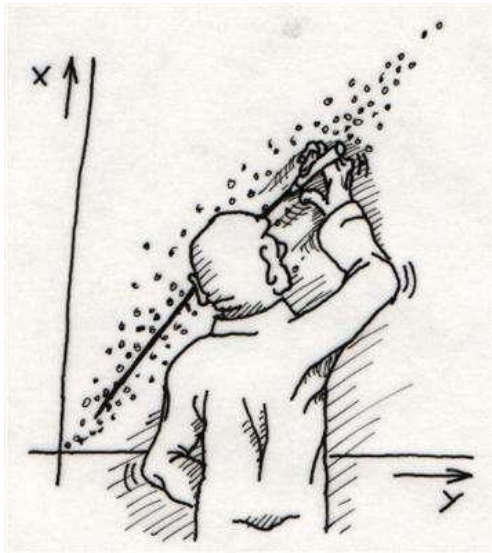


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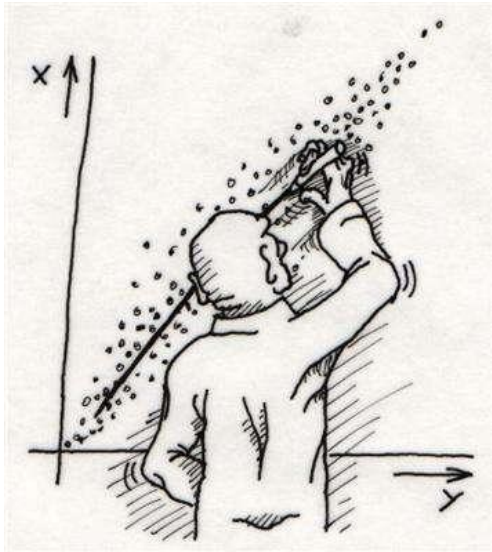


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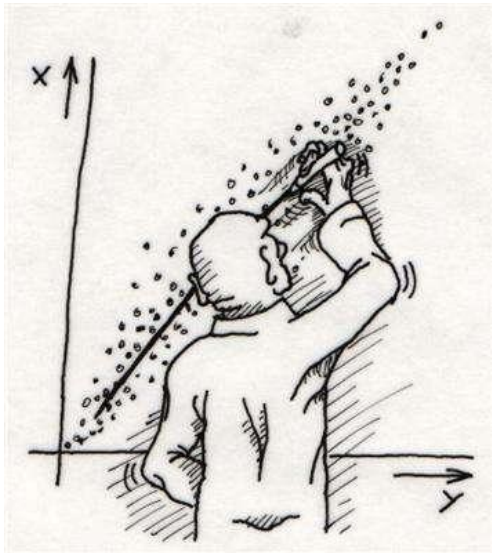


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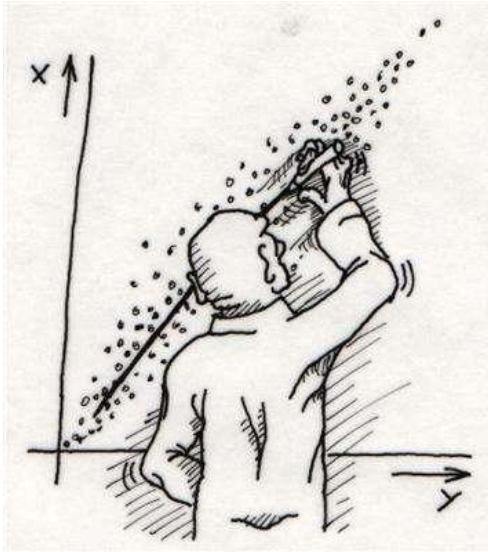


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Small Firms Which Are Digitally Present Serve Export More



VARIABLES	(1) exports	(2) exports	(3) exports	(4) exports	(5) exports	(6) exports	(7) exports	(8) exports
advert_digital	0.0474# (0.0293)	0.0470# (0.0290)			0.0334 (0.0314)	0.0318 (0.0310)	0.0208 (0.0373)	0.0200 (0.0369)
Turnover		0.0502*** (0.0131)		0.0493*** (0.0131)		0.0491*** (0.0131)		0.0490*** (0.0131)
sell_online			0.0379# (0.0257)	0.0415# (0.0255)	0.0280 (0.0273)	0.0321 (0.0270)	-0.00872 (0.0619)	-0.00225 (0.0609)
interac							0.0444 (0.0689)	0.0416 (0.0679)
Constant	0.198*** (0.0253)	0.112*** (0.0317)	0.214*** (0.0183)	0.127*** (0.0273)	0.193*** (0.0262)	0.108*** (0.0325)	0.201*** (0.0288)	0.115*** (0.0349)
Observations	1,089	1,089	1,085	1,085	1,085	1,085	1,085	1,085
R-squared	0.002	0.017	0.002	0.016	0.003	0.017	0.003	0.017

Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1, #p<0.15

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Small firms that are digitally present serve larger geographies and export more

Implications of the Results

Managerial Implications

- Small firms use digital platforms to reach a geographically spread out and niche customer base
 - Platforms provide effective means to reach out to larger geographies and customers
 - Sunk costs being converted to *quasi variable costs* thus increasing entry?
- Data allows more discerning decision making for entrepreneurs making them less risk averse

Policy Implications

- Direct network effects play an important role in small firm decision making
- Policies that regulate platforms need to consider the impact on small firms
- Platforms compete and not only on price

Thank you