

E-COMMERCE ADOPTION BY SERVICE MSMES OF PUNE

Uma Parasuram¹, Gautam Chawla², Alisha Kamat³, Ahana Bhattacharya⁴, Dev Seth⁵, Manna Chaudhuri⁶, Varun Miglani⁷

^{1,2,3,4,5,6,7} Symbiosis School of Economics, Symbiosis International (Deemed University), Pune, India
⁷ varun.miglani@sse.ac.in

Abstract

With economic globalization and information technology development, e-commerce has now revolutionized how producers and consumers view the business. However, when compared with large companies, Micro, Small, and Medium Enterprises (MSMEs) adoption of e-commerce has not been satisfactory. The objective of the paper is to understand the adoption of e-commerce in MSMEs in Pune city and the barriers preventing further adoption of e-commerce. The research used a combination of structured web-based surveying and an unstructured interview-based case study analysis. The survey-form was sent to over 100 service-oriented small establishments in Pune, out of which 65 service enterprises responded. Enterprises were identified from the Udyog Aadhar registration directory. Sample MSMEs were from various service sectors, including publishing, education, consumer services, restaurants, etc. To form a deeper understanding of the extent and relevance of being online to businesses, the paper presents a comparative case study analysis to study e-commerce adoption in the IT and food and hospitality sector. The sample survey found that the average adoption of e-commerce was about 54%. Within the industry, firms have adopted varying levels of e-commerce. Smaller and newer firms within these sectors have shown greater adoption. The most significant barriers to e-commerce adoption were mindset shift towards e-commerce, preference for face-to-face transactions, cost of acquiring skilled workers, and changes in government policies that make the process expensive and tedious. Paper strongly advocates increased integration of e-commerce for small enterprises to improve efficiency and productivity and provides insight towards increasing the level of adoption for MSMEs in Pune

Key words: MSME, E-commerce, barriers, advantages, service industry

Introduction

The Indian economy is heavily supported by the Micro, Small and Medium Enterprises (MSMEs) as ninety-eight percent of the businesses in the country are MSMEs. India's Ministry of Micro, Small and Medium Enterprises (2017) mentions over 80 million people are employed in the 36 million MSMEs. According to Jose (2016), 8% of the country's GDP comes from the 6000 plus products manufactured by the MSMEs, that also makes up about 45% of the total output manufactured in the country. Another interesting fact is that MSMEs make up about 40% of the total exports in India. Needless to say, MSMEs contribute heavily in terms of employment, reducing socio-economic disparities and export potential of the nation (Das, 2017).

The definition for Micro, Small and Medium Enterprises (MSMEs) has been revised as of July 2020 and is not classified based on the "Investment in Plant & Machinery/equipment and Annual Turnover" ("What's MSME | Ministry of Micro, Small & Medium Enterprises", 2020). Manufacturing and service enterprises are classified as 'Micro' when "Investment in Plant and Machinery or Equipment: Not more than Rs.1 crore and Annual Turnover ; not more than Rs. 5 crore". Similarly, they become 'Small enterprises' when " Investment in Plant and Machinery or Equipment: Not more than Rs.10 crore and Annual Turnover ; not more than Rs. 50 crore" and 'Medium enterprises' when Investment in Plant and Machinery or Equipment: Not more than Rs.50 crore and Annual Turnover ; not more than Rs. 250 crore" ("What's MSME | Ministry of Micro, Small & Medium Enterprises", 2020).

A special feature of MSMEs is that they require relatively less investments and offer more flexibility in terms of operations and higher returns. Low setting up requirements, coupled with a high return on investments, allow, MSMEs to play a crucial role in the development and growth our nation (SME Venture, 2016).

The world of small businesses is intricately linked with developments in information technology services, telecommunication services and improvements in online retail, all falling under the researchers understanding of 'e-commerce. In India specifically it was found that mobile shopping grew by 121% in 2016 which significantly contributed to India topping the list in the 2017 Global Retail Development Index (AT Kearney, 2017).

With economic globalization and information technology development, e-commerce has revolutionized how producers and consumers view business. The previous business model has been starkly improved upon by expanding marketing channels, reducing operational costs and strengthening the coordination between upstream and downstream enterprises in the supply chain (E-commerce Industry in India, 2018).

However, when compared with large business, e-commerce adoption by MSMEs has not been satisfactory (David, Cheng, Rama, Parathasarathy, and Kozyrakis, 2015). According to a report by KPMG, over 50% of SMEs understand the potential of e-commerce on their business despite which only 27% of Indian SMEs that operate online, use e-commerce (Snapdeal & KPMG, 2016). The MSME sector, despite employing 40% of the Indian workforce, contributes only 17% of the GDP. The primary reason being slow adoption of technology (Saxena & Jagota, 2015). The paper seeks to understand the reason behind this lag, the prevailing barriers preventing e-commerce adoption. Specifically, the paper focuses on (a) To determine the extent of e-commerce adoption by service MSMEs in Pune; (b) to understand how adoption of e-commerce and information technology services benefit the businesses; and (c) To identify barriers of e-commerce adoption. One of the main reasons for the paper to focusing on the service sector was geographical conditions - Pune has around 31445 service MSMEs as per the Udyog Aadhar directory.

This paper is divided into five sections. Section 2 presents the data sources and methodology adopted to fulfil the objectives of the paper. Results are presented and discussed in section 3. Case Study of food & hospitality and IT MSME is stated in section 4 and section 5 concludes.

Data and Methodology

This study is based on primary data collected from the service MSMEs of Pune. The study adopts a cross-sectional research design with data collected in March 2018. The data was collected using a combination of structured web-based questionnaire and a semi-structured interview-based case study analysis. The questionnaire was finalised after pre-testing of the questionnaires.

Sampling frame of the respondents was prepared from the Udyog Aadhar registration directory of Ministry of MSME for the Pune city. Around 100 service MSMEs were registered in Pune of whose email id was mentioned. All the 100 respondents were reached out of which 65 respondents agreed to give the interview. MSMEs targeted, were from various service sectors including publishing, education, consumer services, restaurants, etc. The classification of the sample respondents based on classification of MSMEs by adopters and non-adopters of e-commerce is mentioned in Table 1. To form a deeper understanding of the extent and use of e-commerce, the researchers decided to go in for a case study analysis using semi-structured interviews. Four companies were chosen based on convenience and appointment availability, two IT service enterprises and two from the food and hospitality sector.

Extent of adoption of e-commerce is measured using four variables: Level of investment in e-commerce as a percentage of total investment, online transactions as a percentage of total transactions, total number of platforms used by the firm and the type of website (static, interactive, or integrated) used (if any) (refer Tables 2,3,4,5). Within the sample of 65 firms, a total of 16 enterprises had valid website links and have been divided by the researchers based on the type of website operational (refer Table 13 in Appendix for type of websites of sample firms).

Questions were coded in increasing order of the brackets of investments, transactions, platforms and type of website, giving each variable an equal weightage, and an overall percentage extent for the level of adoption was determined. Subsequently, we focus on measuring the advantages of e-commerce adoption by a firm. For this,

the respondents were asked to choose the advantages they agree with (multiple response question). Responses are analysed with respect to the level of investment in e-commerce by the firm, number of platforms and percentage of online transactions. This crosstab analysis aims at determining whether there is a positive correlation between extent of e-commerce adoption and the advantages reaped.

Finally, the paper discusses the role certain barriers play towards the adoption of e-commerce by MSMEs. Barriers were specified in the questionnaire and the respondents are asked to rate each barrier on a Likert scale, with 1 being 'Strongly Disagree' and 5 being 'Strongly Agree'. To determine the significance of each barrier, a one-tail one-sample hypothesis testing is conducted. Cronbach's Alpha (Appendix Table 10) is also used to test the reliability of the variables measured on the Likert Scale.

Table 1: Sample MSMEs: Classification

	Level of Investment			Total
	Micro Enterprises	Small enterprises	Medium enterprises	
Non adopters	12	12	2	26
Adopters	14	20	5	39
Total	26	32	7	65

Source: Primary survey

Table 2: Distribution of service type by level of investment

Distribution of service type by level investment				
What service does your firm specialise in?	Level of Investment			Total
	Micro enterprise (less than 10 lakh)	Small enterprise (between 10 lakh and 2 crore)	Medium enterprise (more than 2 crore)	
Clothing & Tailor	4	1	0	5
Consultancy Services	3	1	0	4
Consumer Services	5	5	2	12
Content Creation	1	0	0	1
Design	1	2	0	3
Education	3	1	1	5
Gaming & Arcade	0	3	0	3
IT Services	1	4	1	6
Publishing	0	2	1	3
Restaurant	8	13	2	23
Total	26	32	7	65

Source: Primary survey

Results and Discussion

3.1 Extent of e-commerce adoption

Independent frequency analysis has been conducted to review data based on the number of transactions conducted online, number of platforms used for transactions and level of investment into e-commerce, as a percentage of total investment (refer Table 3,4,5 respectively).

Table 3: Level of investment in E-Commerce as a percentage of total investment

Investment Level	Frequency	Percent
0-5% (1)	12	30.8
5-10% (2)	11	28.2
10-15% (3)	6	15.4
15-20% (4)	5	12.8
20%+ (5)	5	12.8
Total	39	100.0

Source: Primary survey

Note: Figures in the bracket are codes given by researchers

Table 4: Share of Online Transactions as a Percentage of Total Transactions of MSMEs

Percentage of online transactions	Frequency	Percent
0 - 10%	8	20.5
10 - 20%	10	25.6
20 - 30%	6	15.4
30 - 40%	5	12.8
40 % +	10	25.6
Total	39	100.0

Source: Primary survey

Note: This question was applicable to only those firms who have adopted e-commerce

Table 5: Frequency Distribution of Number of platforms used to transact online by MSMEs

Number of Platforms	Frequency	Percent
0	1	2.6
1	5	12.8
2	15	38.5
3	7	17.9
4+	11	28.2
Total	39	100.0

Source: Primary survey

Costs of setting up e-commerce for the business seem to be relatively low, with 30.8% of the respondents choosing the lowest category of investment level, i.e. 0-5% of total investment. No other category of investment level provides a higher percentage of overall responses.

Through a graphical analysis, 60% of the firms in the sample survey were shown to have adopted e-commerce to some extent. To determine the degree to which the firms who had adopted e-commerce were utilizing those services, an analysis was conducted to understand the level of adoption. The result was 54.8% level of e-commerce adoption, showing that although MSMEs have started adopting e-commerce at a fast rate, the

penetration of e-commerce in the business is still not satisfactory which prevents them from reaping the benefits associated with adoption of E-Commerce to a large extent. Pune MSMEs still has a long way to go in terms of extent of adoption.

Table 6: Extent of e-commerce adoption of MSMEs

Online Transactions	Investment in E-Commerce	Platforms	Type of Website	Online Transactions (Score)	Investment (Score)	Platforms (Score)	Type of Website (Score)	Overall Score
2	3	2	0	4	6	6	2.5	18.5
4	4	2	0	8	8	6	2.5	24.5
5	5	1	2	10	10	4	7.5	31.5
4	5	4	0	8	10	10	2.5	30.5
2	3	4	2	4	6	10	7.5	27.5
3	2	2	2	6	4	6	7.5	23.5
1	1	2	1	2	2	6	5	15
1	4	2	0	2	8	6	2.5	18.5
1	1	2	0	2	2	6	2.5	12.5
1	1	4	0	2	2	10	2.5	16.5
5	4	4	0	10	8	10	2.5	30.5
5	2	4	0	10	4	10	2.5	26.5
3	1	2	0	6	2	6	2.5	16.5
1	1	1	0	2	2	4	2.5	10.5
2	1	2	2	4	2	6	7.5	19.5
5	5	4	0	10	10	10	2.5	32.5
4	3	4	0	8	6	10	2.5	26.5
2	1	2	0	4	2	6	2.5	14.5
5	5	4	0	10	10	10	2.5	32.5
5	5	2	3	10	10	6	10	36
2	2	2	0	4	4	6	2.5	16.5
1	3	3	0	2	6	8	2.5	18.5
5	1	2	0	10	2	6	2.5	20.5
2	2	2	0	4	4	6	2.5	16.5
2	1	4	0	4	2	10	2.5	18.5
3	1	3	2	6	2	8	7.5	23.5
3	2	4	3	6	4	10	10	30
4	2	4	0	8	4	10	2.5	24.5
3	2	4	2	6	4	10	7.5	27.5
2	2	1	0	4	4	4	2.5	14.5
4	2	3	0	8	4	8	2.5	22.5
5	4	3	0	10	8	8	2.5	28.5
3	1	3	0	6	2	8	2.5	18.5
5	2	3	0	10	4	8	2.5	24.5
5	2	0	0	10	4	2	2.5	18.5
2	3	1	0	4	6	4	2.5	16.5

1	3	1	1	2	6	4	5	17
1	1	2	0	2	2	6	2.5	12.5
2	4	3	0	4	8	8	2.5	22.5
Overall total score								855.5
40-point scale score								21.93
% Extent of e-commerce adoption								54.83 %

Source: Primary survey conducted by researcher

Table 6 calculates the extent of adoption of e-commerce of each firm. The first four columns, that is, online transactions, investment in e-commerce, platforms and type of website represent scores obtained by each respondent according to their responses. Since these scores were not calculated on an equal scale, the values were up scaled to a score out of 10 and thus normalised. Each score was then totalled to understand the overall total score, which was averaged over the 39 responses to obtain the 40-point scale (summation of all four up-scaled scores). Thus, the percentage extent of e-commerce adoption was calculated and came to be 54.8%.

3.2 Advantages of e-commerce adoption

Multiple response analysis of the open-ended question of advantages of e-commerce adoption is presented in Table 7. For this open-ended question, overall 144 responses were generated from 39 respondents. ‘Expansion of business’, ‘Improved Company Image’ and ‘Helped achieve business objectives’ emerged as the most prevalent of the advantages of e-commerce, with at least 60% of respondents agreeing with each of them. Similarly, the same advantages rank high when taken as a percentage of the total responses with each stated advantage ranking first, second and third respectively, when compared with responses to other advantages. These results can be attributed to increased sales, increased customer base, higher rating on E Commerce websites, etc.

Table 7: Advantages of e-commerce adoption for firms in Pune, Maharashtra

Advantages	Percentage of Total Responses (n=144)	Percentage of Total Respondents (n=39)
Expansion of business	20.83%	76.92%
Improved company image	19.44%	71.79%
Helped achieve business objectives	16.67%	61.54%
Improved customer service	13.89%	51.28%
Improved speed of processing	13.19%	48.72%
Improved employee satisfaction	3.47%	12.82%
Improved employee productivity	2.08%	7.69%

Source: Primary survey

3.3 Barriers to E-Commerce Adoption

Reliability of the barriers have been measured using Cronbach’s alpha test, giving a value of 0.819 as can be seen in Table 8. The use of this statistic thus helps the researcher conclude that every one of the barriers

provides Likert scale data reliable for analysis. Table 9 lists the various barriers in the adoption of e-commerce by MSMEs found through extensive literature review.

Table 8: Cronbach's Alpha - Reliability of Likert scale data

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.819	0.821	13

Source: Primary survey

Table 9: List of barriers found in literature review

BASIS	BARRIERS
FINANCIAL	<ol style="list-style-type: none"> 1. Need extra staff to manage e-commerce systems 2. Difficult to explain the cost with desired benefits 3. Paying consultancy fees and training personnel 4. Buying necessary ICT for e-commerce Maintenance of website and other infrastructures
ORGANIZATIONAL	<ol style="list-style-type: none"> 1. Difficulty in changing the current working procedures 2. Lack of skilled workers for handling or maintaining e-commerce 3. Lack of knowledge about the potential applications of e-commerce 4. Weak support from top management 5. Lack of management support 6. Reliability of service 7. Positioning of Target market is not clear 8. High cost of user support

TECHNICAL	<ol style="list-style-type: none"> 1. Insufficient security and privacy for online credit payment and transactions 2. Insufficient security to prevent hacking and viruses 3. Inadequate quality and speed of lines 4. Telecommunication infrastructure is not adequate 5. Lack of credit cards and payment systems 6. Lack of technical know how 7. Slow download speed 8. Running and maintenance cost higher than expected 9. Difficulty in using (business purpose) and finding(consumption purpose) web sites 10. Reliability of services
ENVIRONMENTAL	<ol style="list-style-type: none"> 1. Most suppliers do not have access to e-commerce 2. Insufficient qualified vendors for developing applications 3. It will upset existing distribution channels 4. Digital Divide
GOVERNMENTAL	<ol style="list-style-type: none"> 1. Changes in government policies as new government comes in the new term 2. No simple procedures and guidelines 3. Economic and political instability
BEHAVIORAL	<ol style="list-style-type: none"> 1. Keeping up with changing technology 2. Mindset shift towards using e-commerce 3. Lack of visionary leadership 4. Low literacy-levels amongst MSME 5. SME owners Lack of management support 6. Trade agreements and transactions (face-to-face)

Source: Authors own research

3.3.1 Significance of barriers

As can be seen in Table 11, the one-sample one-tailed hypothesis test was conducted to check the significance of barriers. With a $\mu = 3$, the analysis is conducted at a 95% confidence level for the mean being greater than 3, with such a score implying the significance of the barrier for firms in Pune, Maharashtra (Abdullah, Thomas, Murphy, & Plant, 2018; Esmaeilpour, Hoseini & Jafarpour, 2016; Saif-Ur-Rehman & Alam, 2016). Various

barriers were identified through previous literature and were tested to see their validity within Pune MSMEs (Table 10). Table 10 provides a quick overview of the barriers to e-commerce adoption as they appeared in the primary survey. There were five responses ranged from ‘strongly agree’ to ‘strongly disagree’ and the Table shows frequency that each response got.

Table 10: Frequency distribution of the barriers to e-commerce adoption that were studied (asked in the survey)

Barriers	Strongly Disagree	Disagree	Indifferent	Agree	Strongly Agree
Cost of Supporting Customers	4.62%	24.62%	23.08%	35.38%	12.31%
Cost of Skilled Workers	4.62%	16.92%	24.62%	36.92%	16.92%
Problems with Identifying Target Market	4.62%	33.85%	27.69%	24.62%	9.23%
Insufficient security	10.77%	23.08%	21.54%	32.31%	12.31%
Inadequate Technology and Infrastructure	16.92%	29.23%	18.46%	24.62%	10.77%
Technical Know-How	4.62%	35.38%	10.77%	36.92%	12.31%
Most Suppliers do not have Access	13.85%	27.69%	18.46%	27.69%	12.31%
Upset Existing Distribution Channels	7.69%	21.54%	29.23%	29.23%	12.31%
Changes in Government Policies	7.69%	35.38%	35.38%	15.38%	6.15%
Complex Procedures and Guidelines	6.15%	20.00%	26.15%	29.23%	18.46%
Lack of Government Schemes	4.62%	21.54%	41.54%	23.08%	9.23%
Preference for Face-to-Face Transactions	3.08%	10.77%	15.38%	30.77%	40.00%
Mindset Shift Towards E-Commerce	3.08%	21.54%	18.46%	40.00%	16.92%

Source: Primary survey

Table 11: Hypothesis testing for significance of barriers to e-commerce in Pune, Maharashtra

One-Sample Test					
	Test Value = 3				
	t	df	Sig. (2-tailed)	Sig. (1-tailed)	Significance
Mindset Shift Towards E-Commerce	3.367	64	0.001	0.00064	Significant
Preference for Face-to-Face Transactions	6.694	64	0.000	0.00000	Significant
Lack of Government Schemes	0.867	64	0.389	0.19471	Insignificant
Changes in Government Policies	-1.839	64	0.071	0.03531	Significant
Upset Existing Distribution Channels	1.197	64	0.236	0.11784	Insignificant
Complex Procedures and Guidelines	2.320	64	0.024	0.01178	Significant
Most Suppliers do not have Access	-0.195	64	0.846	0.42314	Insignificant
Technical Know-How	1.156	64	0.252	0.12597	Insignificant
Inadequate Technology and Infrastructure	-1.064	64	0.291	0.14555	Insignificant
Insufficient security	0.814	64	0.418	0.20922	Insignificant
Problems with Identifying Target Market	0.000	64	1.000	0.50000	Insignificant
Cost of Skilled Workers	3.257	64	0.002	0.00090	Significant
Cost of Supporting Customers	1.903	64	0.062	0.03075	Significant

Source: Primary survey

The hypothesis testing analysis shows six significant barriers in Table 11 preventing further adoption of e-commerce: 'Mindset Shift Towards E-Commerce', 'Preference for Face-to-Face Transactions', 'Changes in Government Policies', 'Complex Procedures and Guidelines', 'Cost of Acquiring Skilled Workers' and 'Cost of Supporting Customers'. Even from Table 10, these are the barriers that tend to be the most relevant. The single most important barrier is the 'Preference for Face-to-Face Transactions' that prevents enterprises from adoption e-commerce. Next comes 'Mindset Shift Towards E-Commerce' as businessmen are not yet comfortable with the idea of setting shop online without a physical presence. The third most significant barrier to e-commerce, as per our research is the presence of *Complex Procedures and Guidelines*.

Small establishments seem to have the technical know-how to establish e-commerce in their business but require more financial aid to do so. In line with the results of the case study analysis, mentioned in the preceding section, small enterprises prefer outsourcing their work rather than doing it themselves. As a result, labour acquisition costs go down drastically, and when the work increases, costs also increase for a brief period.

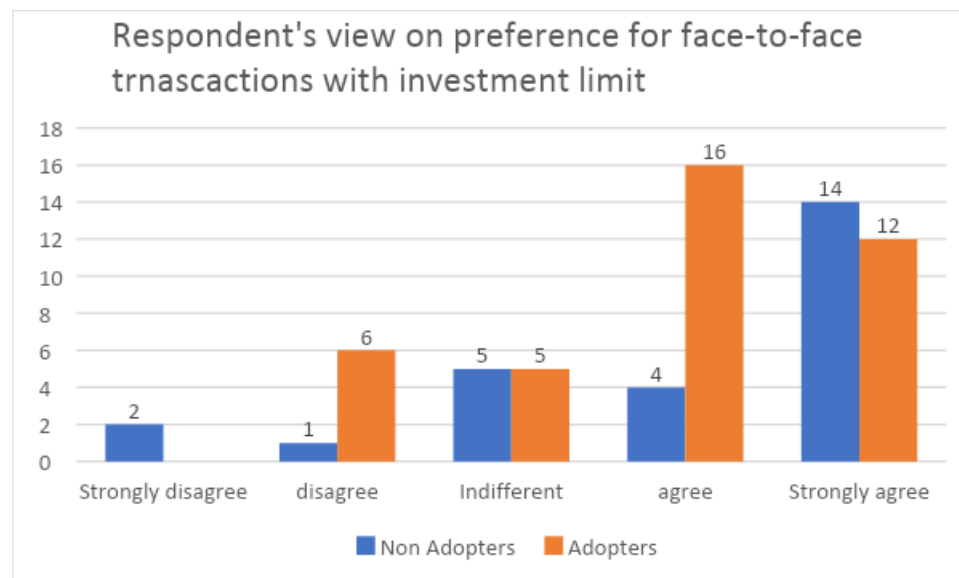
Moreover, the mindset shift towards e-commerce is not only from the business point of view, but this depends more on the consumer's point of view.

3.4 Adopters vs Non-Adopters

The researchers aim to evaluate the distinction in attitudes of both with respect to benefits of adoption of E-commerce as well as barriers for the same.

Preference for face – to – face transactions

Figure 1: Comparison of e-commerce adopter and non-adopters of preference for face-to-face transactions

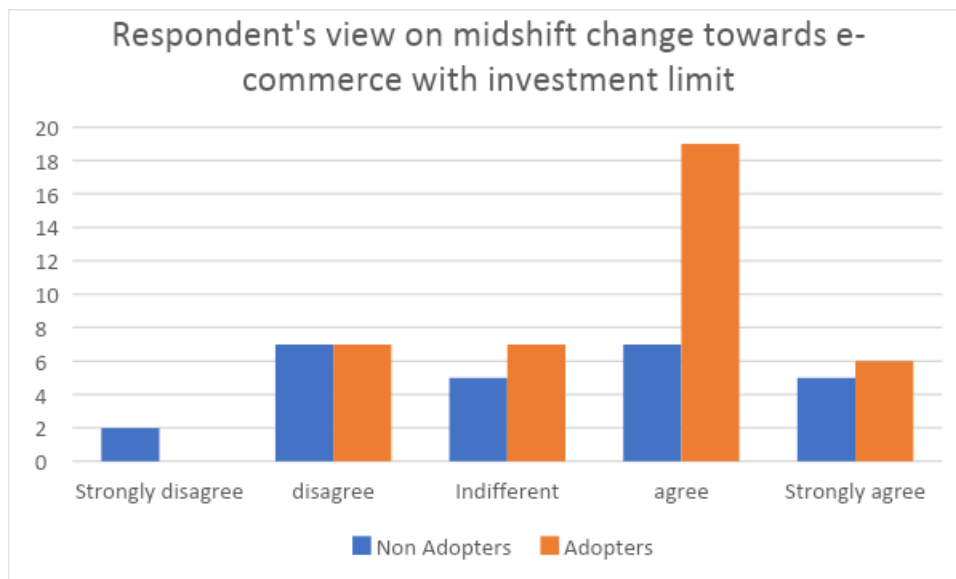


Source: Primary survey

It can be inferred from Figure 1 that 69.2% of the total non-adopters and 71.7% of the total adopters prefer face to face transactions over online transactions. Despite the ease of doing business on E-Commerce, both adopters as well as non-adopters prefer a personal touch in transactions. The reasons for face-to-face transactions tend more towards traditional business practices than the fear of conducting business online.

Mindset shift towards e-commerce

Figure 2: Respondent's view on mindset change towards e-commerce with investment limit

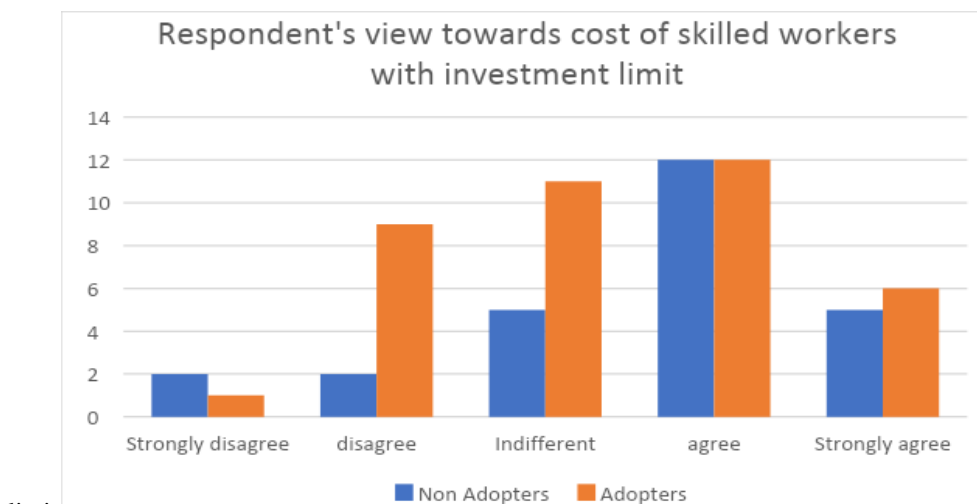


Source: Primary survey

It can be inferred from Figure 2 that 64% of the total adopters think that there is still a need for a mindset shift towards the adoption of e-commerce, whereas only 46% of the non- adopters agree to the same. The statistics for this factor support industries that can sell their products online on a large scale.

Cost of skilled workers

Figure 3: Respondent's view towards cost of skilled workers with investment limit



limit

Source: Primary survey

It can be inferred from Figure 3 that 46.1% of the total adopters consider this to be a barrier whereas 28.2% of the same are indifferent. 65.4% of the total non-adopters consider this to be a major barrier. This data was highly correlated with the volume of transactions with which businesses conducted their businesses online. If their volume of transactions was higher than the cost of skilled workers was also high, an alternative to

managing the high cost was to outsource their work that many businessmen did if they had the connections to do so.

Case Study of enterprises of IT and food & hospitality sector

Businesses that went online in the years of 2009-2011, when the Indian economy was not in a good state owing to international mismanagement of economies, were only looking to expand their businesses. They were not experiencing heavy losses as compared to those who were only connected with the international market. Jump to 2014-15, companies like Uber and Amazon were about to make an entrance into the Indian market. While some were sceptical about ordering online for their daily needs, some were excited to book their first cab online. This created the consumer shift that was required in 2011 for companies to make a multi-fold profit.

For this case study we studied businesses from the IT and food & hospitality sector. These companies were selected based on the extent of e-commerce adoption for their firms, while one had a high extent of e-commerce adoption the other had a low adoption level. This allowed us to conduct a comparative analysis between both the companies and grasp a better understanding of the current situation in the market. Further in the paper, the participants of the case study will be referred to as P1 and P2 for food & hospitality sector, and P3 and P4 for IT industry. The following discussion proves how the above stated significant barriers play a major role in conducting business online.

4.1 Food & hospitality sector case study

P1 incorporated e-commerce in 2015 after almost eight years into their business following the market changes and transformation of the food industry by several food applications. The owner's reasoning on taking to e-commerce was the current change of times and to meet the consumer's demands. Even at a small scale, they use online services firstly to sell food on delivery apps to customers and secondly to source their produce from their vendor. Post adoption several factors fell into place, the restaurants revenue over the years significantly increased- about a 30 percent rise in profits, which lead to a major business expansion by opening a new branch in another location. Thus, there was a positive increase in the investments. The number of employees after adoption increased by around 120%. P1 always had its loyal customers but after e-commerce its customer base notably increased to the point where the restaurant now makes approximately 300 orders daily. They expanded their menu by introducing new items especially the ones that the customers requested and some general public favourites. An integral part of adopting e-commerce is the restaurant introducing its own website. They wish to have their own website and application for online ordering to reduce its dependency on apps like Zomato and Swiggy. After gaining popularity although the cost of production increased, profit rose faster along with sales, investment and customer base.

P2 incorporated e-commerce right from the start back in 2017 but its extent of adoption differs from P1. P2 runs its restaurant on a much larger scale, with an extensive staff and menu. Having invested in a number of other industries, P2 believes that the adoption of e-commerce depends on the product one sells and not all products are meant to be supported by way of e-commerce. While they still use online services to source their raw material, reluctance arises when it comes to selling their food on delivery apps. Having followed the traditional route of running a restaurant, the sales, profit and investments have changed according to the time.

Preference of face-to-face transactions was a distinctive barrier between the two restaurants. While P1 preferred online orders, P2 with its traditional principles preferred otherwise. Delivery issues and delayed orders was a barrier common to both. High cost of website setup and supporting customers online did not seem as much of a problem as both agreed for it to be part of ordinary business costs.

Since P1 has understood the nitty-gritties of using e-commerce because of its early adoption, it has drafted out plans for its own autonomy over fast-food online orders through a website. However, P2 follows a contradicting belief system, where it prefers the referral way of conducting business. Even though P2's experience in the

world of business is higher than P1's, its model of minimal presence on online platforms has proved to be a bane for the business.

4.2 IT Service case study

P3 is a B2B focusing on software consultancy and data analytics. They decided to adopt ecommerce right from their year of establishment back in 2014 as it provided a wider networking connect especially through social media platforms like LinkedIn and Facebook.

P4 is a small-scale firm, focusing on sleep disorder diagnostics. Although P4 entered the industry only in 2017, they decided to adopt e-commerce to cope up with recent times in technology. The company uses e-commerce for content marketing as well as targeting specific audience. In order to cut down on costs, both companies have taken to cloud technology to store information.

After studying the IT perspective, it was understood that, in the first few years of adoption, the investment into e-commerce increases because of increase in new mediums to conduct the main business. Both cases taken into consideration agree that, investment into e-commerce and its tools (like social media marketing, setting up of online payments, extra security, etc) require re-investment due to high maintenance cost. Outsourcing the work comes in handy, as agreed by p3 and p4. They believe that the company should focus on its core and let the experts do what they're good at.

P3 proved how e-commerce made the company grow and provide the push that it required. It has been growing on a steep curve since it entered the e-commerce sphere. P3 has been in business for five years and has a fair knowledge about the industry. He says, one of the most important things about firms adopting e-commerce is the consumer's mindset shift towards e-commerce.

Since many of the businesses prefer to keep the business in their family itself, they feel comfortable following tradition and fear taking up anything out of their path of comfort.

It was observed that the costs associated with the business in the beginning of the year – marketing costs, setting up costs, etc- were reduced. P4, was able to connect easily with its clients, and increase its clientele by a steep curve because of adopting e-commerce.

There exists an entire market of multiple businessmen who refuse to use any internet means to conduct their business; they still prefer the referral way of conducting their business in the country. Concluding this argument P3 said that only the next generation can bring about the change that the current enterprises are looking for. Even though the average age of Indians is 25, they fall mostly under the employee category than running the businesses. As that change begins to take place, we will be able to see more businesses sell their products online through mediums not even created until now. Thus, being able to overcome most of the barriers that exist in today's world and creating new ones in the future.

Conclusion

Adoption of e-commerce has been a driving force in the expansion of business and has assisted in achieving the businesses' objectives. Although e-commerce has helped companies expand it hasn't led to any similar increase in employee satisfaction or productivity.

Cost of setting up of e-commerce is relatively low and although the amount of transactions taking place online depends on the type of business at play, it is safe to say that a major chunk of transitions happens online for the businesses that have adopted e-commerce. The one of the broad categories of barriers that stop MSMEs from adopting e-commerce is the behavioural barriers that exists in the market this can be because businesses prefer face-to-face transactions. The other categories of barriers include financial and organizational factors which are surprisingly low, although technical barriers are perceived to be the major cause of adoption, research has nullified this assumption.

There exist government schemes ('Digital India' and 'Technology Framework Centre') and benefits provided by the government, however very few MSMEs are even aware of them. Proper campaigning and promotion of e-commerce will help shift the market towards it faster.

It is evident that in the years to come e-commerce will be more dominant in the business traditions currently followed by older generations, as younger generations will keep replacing the older generation and thus will tend to adopt easier methods to conduct their business operations. Thus, it is imperative for future researchers to look for upcoming trends in the market that will have greater impact on the businesses run by future generations

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