

Study of Competitive Strategies of Kirana stores and Sustainability in Current Market Situations

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Abstract –The purpose of this project is to conduct a study on the competitive strategies of Kirana Stores in the current market scenario. To give an idea, India is a large and diverse country with a rich and deep history. For the longest time, Indian people have been flocking to unorganised local Indian stores called “Kirana” stores for their daily grocery needs. Competitive Strategies of Kirana stores and the sustainability in current market situations focussing on both the customers and the store owners. The objectives of our project focus on understanding the impact of the Organised retail with respect to both customers and owners option of view, followed by coping strategies which might allow them to sustain in such tough market conditions and finally to find if there is any dependency between the two. The project commenced with data collection using numerous questionnaires as we had to collect multiple data points which allowed us to achieve our objectives. We surveyed nearly 100 customers and stores, from which we were able to create a customer persona followed by an empathy map. This data allowed us to understand better the problems faced by customers and store owners. Michael Porter’s 5 Forces was made use of to analyse whether the threat of a new entrant or substitute is significant, moderate or low as it would allow us to suggest coping strategies. We have used Cronbach’s alpha, a tool which was used in the SPSS software to test the questionnaire’s reliability. Lastly we carried out the Chi-squared test of Independence to check whether there is any dependency with the strategies suggested to the scale of the store.

From the project we were able to conclude that the Kirana stores are being affected by the organised retail and there is a dependency on three occasions of the strategies adopted by the stores to the scale of the stores.

Key Words: Kirana stores, Impact of organized retail, Coping strategies, Chi-squared test.

1. INTRODUCTION

India is a large and diverse country with a rich and deep history. For the longest time, The Indian people have been flocking to unorganised local Indian stores called “Kirana” stores for their daily grocery needs. The landscape today though is very different. India has become a cosmopolitan country and is fast getting accustomed to the ways of the west and modernisation is rampant across all fields and the retail sector is no exception. India over the past decade has been going through a retail revolution. The organised sector has been slowly but surely entering a space largely dominated by the unorganized sector for decades. The majority of this revolution has been mostly delegated to the populous metropolitan cities.

The retail industry in our country is split into two main sectors, the first being the organised sector and the second being the unorganized sector. In the organised sector the stores are more or less registered and must pay goods and services tax which is levied on them. This sector includes the

super markets, hypermarkets which are backed by the big corporations and large scale chains, and also multinational corporations. Today a newer form of organised retail has been emerging in the form of E-commerce and ever since Covid-19 the use of this form of retail has been significantly on the rise. On the flip side, the unorganized sector refers to the more traditional, local forms of stores that are mostly very small scale and operated by the owners themselves, they have a smaller cost structure and don’t take up unnecessary space in real estate, these are more commonly called the “Kirana” stores.

Earlier in India, only the local Kirana stores were the options for consumers to cater to their daily needs. Adding to the fact that people at that time had lesser mobility and it was an easier option to buy their groceries and daily necessities from the nearest available store. But in today’s changing demographics, increased purchasing power, nuclear families, increase in modernisation, higher connectivity, and availability of alternatives there has been a major change in consumer perception.

In Spite of the revolution India still has over 12 million Kirana stores and this accounts for approximately 90% of sales of groceries even today. These stores being the backbone of the retail economy are still the lion’s share. They however now, have new competition in the retail space in the form of e-commerce. Since Covid-19 the sales of the organised sector mainly e-commerce has been rising at an alarming rate.

This change in the consumer behaviour can be attributed to a variety of factors and the one who are facing the brunt of this change is the local Indian Kirana stores who have to update their modus operandi and the way things are done to remain competitive in the current market situations.

This paper first discusses the various related work in the area of retail in India. The next section highlights the analytics tools and methods. Lastly, the paper helps understand the challenges this methodology can bring with it.

1.1 Existing System

Organised retail in the recent past has been growing at a steady rate. Ever since the Covid-19 pandemic, there has been a sudden and radical change in consumer behaviour. The unorganised retail sector which has been the backbone of the retail economy has adversely been affected by this sudden shift of consumer behaviour. The local Kirana store owners, caught unaware by the circumstances, are facing many difficulties in customer retention and services. Thus to perform research in the current scenario our topic for the research is “Study of Competitive Strategies of Kirana stores and the Sustainability in current market situations”.

After discussing the existing systems, it is evident that big data analytics prove to be very advantageous in helping industries and organizations generate value out of the data collected. But dealing with big data is not an easy task and brings along with it certain challenges. This section discusses the challenges faced in dealing with big data.

2. RELATED WORK

The research conducted in. Rupali Pramanik, Shakti Prakash, et al. [1] described the profiles of small retail shoppers and then used empirical analysis tools to show the strategies to promote sales. They used two models for sales promotion and customer retention and made questionnaires on a scale of one to five to conduct this analysis. They thus sounded out the effectiveness of promotional and customer retention strategies by the use of questionnaires and interviews. They concluded that in the area the customers of the unorganised retail were happy, successful, and profitable. It was concluded that the unorganised sector was not affected by its competition and they focussed on customer satisfaction and services which gave the target customers the personal edge that helped them stay afloat.

A related research in this area. Prof. K. P. Mishra, et al. [2] discusses the impact of organised retailing on Kirana stores in Pune city and also explores the strategies to compete with the organised retailers. They used the 3 Ps method of qualitative analysis to explain the impact on unorganized retail. They realised through their findings that consumers want to shop at a place where they can get all their needs of food, entertainment, and shopping all under one roof. Thus the local Kirana stores must use different strategies to satisfy and retain customers and at the same time maintain a long-lasting relationship with them.

The reference. Prof. Avinash G Mulky, et al. [3] researches the factors which influence Indian consumerism by the selection of a particular retail format. By doing so they also wanted to find the behavioural patterns that influence such format selections. They used questionnaires to gather information on a Likert scale and then made use of hypothesis testing and factor analysis. Using these methods they were able to conclude that some of the factors have an influence on satisfaction from the Kirana stores either positively or negatively.

Further. Balkrishan Sangvikar, et al.[4], analysed the effect on the number of consumers visiting the Kirana stores after the introduction of larger-scale malls and organised retail. They also dwelt on the organisational policies that the smaller kirana stores were following. By the use of hypothesis testing and ANOVA test, they concluded that customers prefer buying their basic requirements from both kirana stores and organised retail depending upon their purchasing power and income group. The main attractions for consumers in the unorganized sector are home delivery of the stores and the easy accessibility to these small stores.

Another paper that analyses consumer behaviour in. Ms Priya Vij, et al. [5] compares the consumer behaviour of consumers towards unorganized local stores and organised large hypermarkets/malls in Indore. They also aimed to deduce the consumer satisfaction level from each of these two types of

retail. This paper reiterates that both the organised and unorganized sectors of retail can exist and be profitable.

A research conducted in the city of Bangalore. Lakshmi Narayana K1, et al. [6] seeks to find out the consumer behaviour towards organised and unorganized retail. At the same time it looks to understand the consumer satisfaction level towards a specific retail. Using Questionnaires and personal interviews it analysed the consumer behaviour and found that the major factors influencing consumers are proximity, goodwill, credit, bargaining, and home delivery.

3. OBJECTIVES

The main objectives of this project are as follows -

- To understand the impact of the organised retailing sector on the local Kirana stores.
- To explore the coping strategies employed by Kirana stores to remain sustainable in current market trends and conditions.
- To analyse the influence of the scale of the Kirana stores on the coping strategies.

4. METHODOLOGY

The methodology implemented to achieve the above-mentioned objectives is as follows:

Pilot project: For the collection of the primary data to analyze the pain points of the Kirana store owners we conducted interviews with the Kirana store owners to analyze their problems using a questionnaire. From this we were able to deduce the overall issues faced by the store owners, from this we were able to create an Empathy map. Simultaneously we also created questionnaires for the consumers and analyzed that data as well, this helped to create a customer persona and analyse the impact of organized retail from the customers' perspective.

Sample size: A specific number of questionnaires was required to analyze the data and in order to get this number, a simple random sampling method was used. This formula gave the required sample size for the customer questionnaires as well as the number of stores that needed to be visited. From this, we were able to collect the data for the required analysis.

Reliability test: Cronbach's alpha test for reliability was used on the SPSS software in order to test the reliability of the questionnaires. This helped in validating the questionnaire and hence the data collected from the same. **Store Profiling:** Using the questionnaires, the profiling of the stores was done based on the various parameters of size, scale, income, number of years in business, and so on. This helped in categorizing the type of Kirana stores in the areas of the city of Bangalore that were used for the sample population.

Impact of Organised Retail: The data which was collected from the questionnaires was used to analyse the impact of organised retail on the unorganised retail. This was done using graphs and charts for better representation. In addition to this a qualitative analysis of the Kirana stores using Michael Porter's Five Forces analysis was used. **Strategy for Sustainability:** The strategies adopted by the Kirana stores in order to stay competitive in the market were analyzed from the data that was collected. The dependency of the strategies based on the scale of the store was also analysed using the Chi-Squared test of Independence and results for the same

were obtained and the objectives of the research were achieved.

4.1 Data Collection

The data collection begins with a questionnaire based survey and the sample size was pre-determined. The questionnaires helped us profile the shops we were visiting to get an idea of the store and other metrics related to the size of the shop and the turnover were just a few examples of the questions present in the questionnaire. This way of surveying was the best option as it allowed us to make tabulations as to what questions had what responses, the number of stores to get the survey done was decided upon calculation of sample size using the data of the number of stores present in the city of Bangalore as our study was focused on to this specific region. We had around 97 stores to document with regards to surveys and profiling and strategies as well.

4.2 Sample Size

The number of Kirana stores in Bangalore was considered as 40,000 as confirmed by a few of the store owners we interviewed, the proportion was 0.5 as we did not have any information regarding what proportion is more towards the city and was calculated for a confidence interval of 90% with error rate as 10% we get the sample size as 68(approx), this was a bit lower in terms of confidence level so we thought of improving the sample size by increasing the confidence interval to 95% keeping the error rate at 10% itself the final sample size is 97.

4.3 Questionnaire

This was taken as a primary mode of survey combined with audio and video interviews alongside the questionnaire as a way to capture the views of the shop owners as well as the customers as we proceeded with the surveys we found that people, as well as the market, has changed in a lot of ways and they have more options to choose from ever before, allowing the customer to choose from this diversity in most cities while the tier 2 cities are on their way to be right next to the cities. Moreover, the customers have the option to check the prices in seconds making way for price-conscious buyers at one-stop shops. These were only understood after taking these surveys the questions are in an order which allows the customer to not think much and it will not take more than 2 minutes to fill the questionnaire, we kept this in mind while designing the survey as we did not want to burden the customer or the shop owner's to waste their precious time and resources. The questionnaire which focuses on the survey of the customers and is segmented, starting with basic questions on customer's demography such as age and their families income, and their preference for purchasing in organised or unorganised retail. Then we go on to ask the customer about their proximity to such shops, followed by open-ended questions to keep the customer in check, and not make everything a yes or no type question.. The team tested why people might go with supermarkets and e-commerce as the convenience it provides is unmatched, allowing the variable delivery options to help the tech-savvy customers schedule their orders. It sums up the customer's view across various demographic choices.

The aim of the first questionnaire was to answer the fundamental question of has the sales of Kirana stores been affected due to the supermarkets and e-commerce platforms that deliver groceries and other essential goods. Finally, the

team wanted to get an idea about how much (in terms of %) have the shops been affected by organised retail, to have a measurable change for the shop's turnover. It gives us the impact of organised retail on the Kirana stores.

The second questionnaire focused on store profiling, which was carried out to get the idea of the scale of the store and for how long they have been in business as primary factors which are crucial for any store. Profiling allows us to put them in different baskets and saves us time while deriving conclusions. Most importantly we had the opportunity to talk to them and connect with the changing times in the perspective while we interacted with the store owners.

The final questionnaire Competitive Strategy was taken in which the team collected the responses alongside the store surveys, it consisted of ten Questions regarding the Strategies. This was an important step as we will use this data to check the chi-test of dependency and check against the hypothesis made.

5. RESULTS AND CONCLUSION

The results for the Study of Competitive strategies of Kirana stores and Sustainability in current market situations can be generated based on the objectives formulated for them.

5.1 Customer Persona and Empathy Mapping

From the data collected from the customer questionnaires a Customer Persona was made.

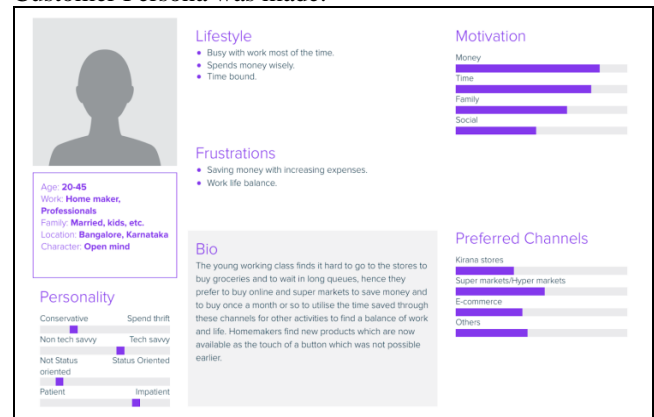


Fig-1: Customer Persona

The customer persona helps to analyse the consumer behavior and perception. As shown in Fig 1, we can see the demographics of the consumers which include factors like age, profession, marital status, and geographic location. It also shows the personality, lifestyle, frustrations, motivation and bio of the average consumer. From the persona the average consumer preferred using supermarkets as compared to the other forms of retail. The main motivating factor towards a type of retail being money, therefore confirming the price consciousness of the Indian market. The consumers were found to be conservative in money spending, tech savvy in nature and impatient further showing why they preferred online shopping and supermarkets. Taking the point of view obtained from the customers and the inputs, a store questionnaire was prepared for the main analysis.

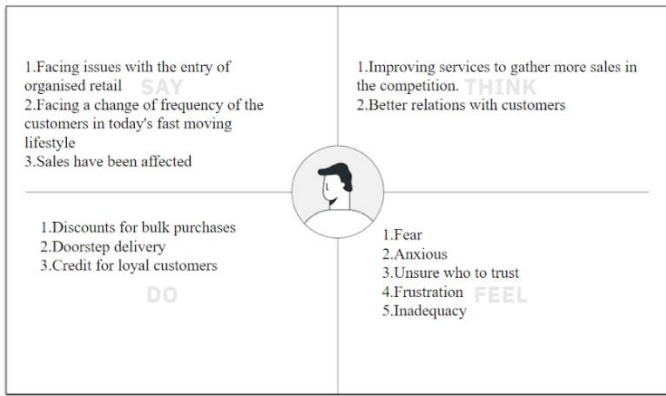


Fig-2: Empathy Map

The Empathy helped in understanding the needs and problems of the kirana store owners and aided us in preparing the questionnaire for analysis. As we can see from Fig 5.2, the four quadrants of the empathy map detailing the says, thinks, does and feels, of the kirana store owners is highlighted. From the empathy map we can conclude that the store owners are aware and wary of the competition faced from organised retail. They are experiencing a change in frequency of customers and sales have been affected. The store owners feel anxious, fear, frustration, inadequacy and a lack of trust. These were the outcomes gathered from the empathy map.

5.2 Cronbach's alpha

This was conducted to test the reliability of the questionnaire so it was tested on a data set of twenty six stores responses and the result was not in acceptable range and then we tested it with all the data the team had collected i.e. for a hundred stores, the alpha value was around 0.574 and the standardised value was around 0.602 which is within the acceptable range as any value above 0.5 is acceptable. Since the data showed we can accept the questionnaire as the reliability well in the acceptance zone, so we considered the responses and continued with our project work to proceed into further stages, which includes Chi-squared test of dependency followed by Michael porter's five force analysis.

5.3 Michael Porter's Five Force Analysis

Porter's Five Forces is a model that is used to identify and analyze five competitive forces that sets an organization's weaknesses and strengths and also shapes them. It is frequently used to recognize an organization's structure to understand corporate strategy. Porter's model can be applied to any segment of the economy to infer the competition level within the industry and sustain and increase its long-term profitability.



Fig-3: Michael Porter's Five Force Analysis

As depicted in Fig 3. After collecting the data, qualitative analysis using Michael Porter's was done. Through this it was inferred that the threat of new entrants is moderate because Capital requirements are high and thus not easy to enter the market and also with the changing nature of E-commerce and the funds from VCs new players are up and coming. Threat of substitutes is high because of Option of organized retail having instant and doorstep delivery and the consumer base is more tech-savvy and modernized. Bargaining power of the Supplier is low because many suppliers are available hence a lot of options and very less differentiation in the product range. Bargaining power of consumers is high because of the growing number of buyers with access to funds and technology and it is a consumer oriented market. Competitive Rivalry is high because there are various options in the market and no monopoly and industry has no clear leader and thus the competition is higher and more cut throat.

5.4 Impact of Organised Retail

In order to analyse the impact of organised retail on local kirana stores a variety of questions were asked in the questionnaires which gave us the required data to come to conclusions regarding the impact on the kirana stores. As shown in Fig 4 and 5, the sales of kirana store owners have been affected by organised retail by 75% of the kirana stores which faced the same problem. They also faced the problem of change in frequency of customers visiting the kirana stores due to the organised retail, 85% of the store owners faced this problem.

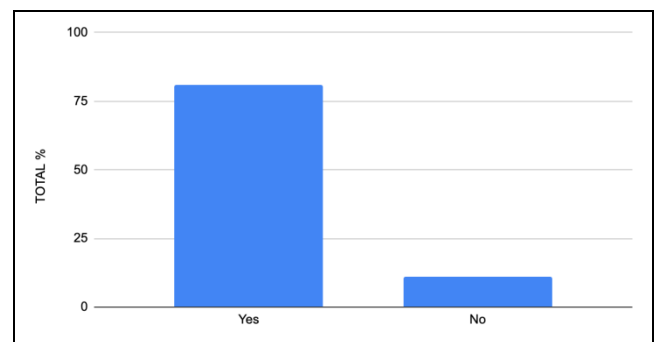


Fig-4: Sales affected by organised retail

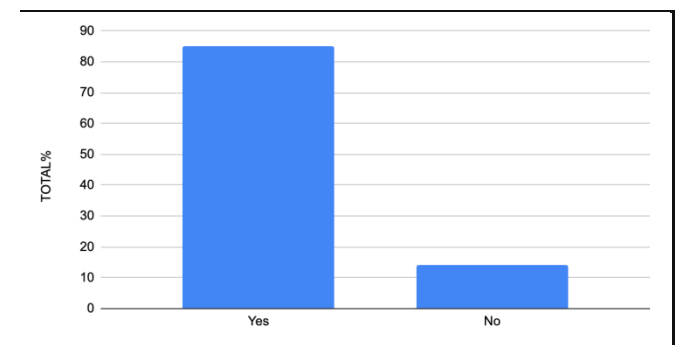


Fig-5: Frequency change of customers visiting kirana store

From Fig. 6 we can clearly see the shift in consumer perception towards local kirana stores in the city of Bangalore. As we can see a mere 23% of the respondents still use kirana stores as compared to a whopping 77% who use organised retail with supermarkets beating out e-commerce with 46% over 31%.

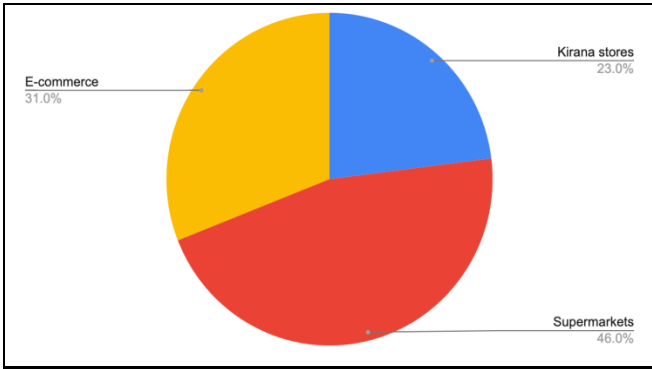


Fig-6: Form of retail used for purchases

In Fig 7 the changing consumer perception and behaviour can be seen. In today's fast paced world consumers do not have the time to go to separate places for all their needs and usually shop at a place where all their needs are satisfied as can be seen with 83% of the consumers agreeing to this question.

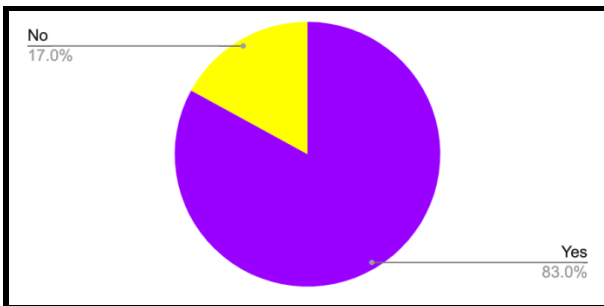


Fig-7: Does e-commerce attract you due to one-stop shopping

In Fig 8 the reason why consumers use supermarkets as an option can be seen. The Indian buyer being extremely price conscious visits supermarkets for discounts and to purchase in bulk which can be seen by 73.4% of respondents agreeing to this question.

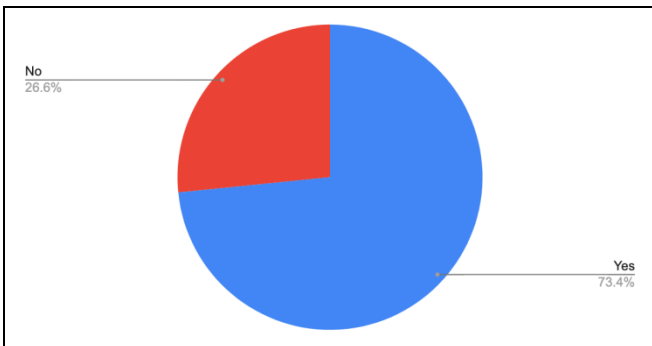


Fig-8: Offers attracting consumers

In Fig 5.9 gives us the conclusion that the Covid-19 pandemic did have an impact on consumer behaviour and a major impact on the local kirana stores. 79.8% of the respondents have agreed to the fact that they have used e-commerce as a medium for purchasing since the Covid-19 pandemic thus concluding that the kirana stores have lost customers since the pandemic.

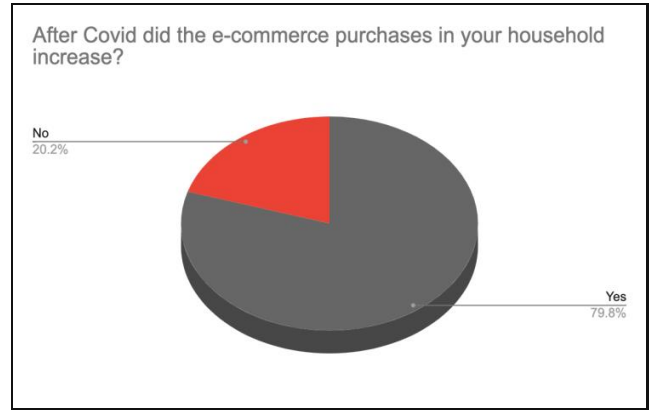


Fig 5.8: Impact of Covid-19 on kirana stores

5.4 Chi-squared Test of Independence

The Chi-squared test of independence is used in this report to analyse the influence of the scale of the stores on the coping strategies. Essentially this test determines if there is a significant relationship between the scale of the stores, in which we have taken three namely small, medium and large based on the sizes of the stores as well as their annual revenue, to the coping strategies. By analysing the influence a better understanding of the strategies adopted as per the scale can be found and thus more specific strategies can be devised for each scale of store.

The Chi-squared results of independence of all the strategies have been shown in Table 1. The strategies which are influenced by the scale of the stores have also been shown. From this we can see that home delivery, special discounts for bulk orders and credit facilities are the strategies that are dependent on the scale of the stores. Home delivery achieving a chi-squared value of 10.050, special discounts a value of 18.193 and credit facilities a value of 7.220 are all dependent on the scale of stores.

Table 1: Strategies and Chi-squared test

STRATEGY	Adopted	Not Adopted	Chi-Squared Value	Asymptotic Significance (2-sided)	Hypothesis Acceptance
Question 1	6	93	4.156	0.125	H1
Question 2	49	50	10.050	0.007*	H0
Question 3	74	25	18.193	<0.001*	H0
Question 4	0	99	-	-	-
Question 5	66	33	2.148	0.342	H1
Question 6	6	93	4.156	0.125	H1
Question 7	18	81	1.750	0.417	H1
Question 8	96	3	2.685	0.261	H1
Question 9	54	45	7.220	0.027*	H0
Question 10	2	97	0.087	0.957	H1

6. CONCLUSION

The team has used all the above tools and techniques to analyse the impact of organised retail on kirana stores and also the coping strategies in the current market situation. Through using the customer personas and the empathy mapping the team deduced the problems faced by the store owners. This gave us the information required to create questionnaires to analyse the impact and coping strategies. From this the team was able to analyse the impact of organised retail on kirana stores through the questionnaires. As shown in the results from the perspectives of both the consumers as well as the store owners, it can clearly be seen

that organised retail has impacted the local kirana stores. The coping strategies that would most likely be adopted by the local kirana stores was also deduced. Finally the dependency of the strategy on the scale of the store was analysed. From this as explained in the earlier chapters we can conclude that for specific strategies the scale of the store does influence the strategy adopted.

6.1 Limitations

The limitations arise in data collection. The data has been collected majorly through one on one interaction and differs for every individual store. Majority of the data was categorical and hence, certain analysis couldn't be conducted due to limited numerical data in this context. Several quantitative and qualitative analysis techniques are available and each differ in their reliability, accuracy and validity. Also, this project has been conducted in Bengaluru and would be hard to resonate in other areas.

6.2 Future scope

The scope of this project is a scalable model which makes use of only questionnaire survey and interviews which can be improvised in the future by making use of data generated from the organised retail if the data is collected to better understand the customers purchasing behaviour as we do not have a method to test the information they have given in the customer survey which will help understand what is the main reason people prefer the organised retail over unorganised in the urban due to the change in customers purchasing behaviour in the recent times. It can also be tested with what the strategies have proven in our research by testing it in the real world by asking shops to adopt these changes and can also be carried out as proofing to either prove the hypothesis and the result or contradict, the scope of the project can be further improved by conducting more chi-test of dependency on the current data to have more clear understanding of what other factors might contribute the most to implement a strategy. The result may be right or wrong but it can only be found after testing it in the real world, the tests we conduct do not consider the real world of changing markets and purchasing behaviour.

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