



## Implications of organized retailing in horticultural crops in Punjab

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### ABSTRACT

The economic reforms to boost foreign direct investment in retail sector initiated in India had unfavorable consequences on the ongoing traditional system. The organized retail sector, known as super markets, is likely to make a threat on the vast traditional retail sector of India. Based on primary data collected during 2016–17 from supermarket stores, unorganized retailers and consumers of Punjab, the study revealed that volume of sales, employment and profit margin of the unorganized retailers of fruits and vegetables have decreased due to the commencement of super markets. To counter the adverse impacts of supermarkets on neighborhood fruits and vegetables markets, it is suggested that pro-active government interventions in encouraging retail cooperative system and developing sufficient infrastructure for unorganized sector would help fruits and vegetable retailers for enhancing their efficiency. It would indeed be depressing to know that traditional markets which till recently were thriving have been fading away. Hence the small retailers need to be encouraged and guided to modernize not only themselves but the entire market place as well.

**Keywords:** Probit Model, Supermarkets, Traditional retailers

The wave of economic reforms in India to incentivize Foreign Direct Investment (FDI) in retail sectors is promulgating a new debate in the economy. It is being propagated that, India is one the fastest growing corporate retail destinations in the world (Joseph *et al.* 2008 and Singh 2019). The permission for 51% FDI in multi-brand retail is expected to spur the food supermarkets growth (Singh 2012). However Mohan *et al.* (2007) emphasized the dangers of FDI in India's retail sector. The study identified that if the number of supermarkets and retail chains multiply, the sales impact on small shops is likely to be intensified and earning will keep falling till all these micro accumulators become micro-subsistence seekers. Moreover, issue of organised retail is linked to the improvement in the efficiency of the Indian agricultural marketing system which suffers from inefficiency, fragmented marketing channels, poor infrastructure, and policy distortions. This is true across most states of India with even green revolution regions like Punjab being no exception though some of them have better agricultural marketing infrastructure especially for foodgrains (Chand 2012). But, the traditional marketing of Fruits and Vegetables (F&V) even in Punjab primarily takes place through the unregulated F&V markets. Little attention is paid to grading, sorting and storage of the produce. There is no modern system of packing and processing of F&V in any market of the state (Sekhon and Rangı 2007). In

this situation, there is very little understanding of what the impact of corporate retail will be on so-called unorganized retail sector and the agriculture sector.

### MATERIALS AND METHODS

The experiment was conducted in the Punjab, Ludhiana, which is considered as hub of supermarkets. There are 106 supermarkets in the Punjab state, out of these 21 supermarkets falls in the Ludhiana city. For the purpose of the study four supermarkets stores choosing two each from Easy Day and Reliance Fresh were selected in Ludhiana city. To study the consumer preferences and their decision of consumers to visit the supermarkets, 80 customers (40 regular visitors of supermarkets and 40 non-visitors) were selected using random sampling technique. To analyses, the impact of supermarkets in the sales and profit of the nearby, unorganized retailers like shopkeepers, vegetable vendors and hawkers falls within 5 km radius of Easy Day and Reliance Fresh store were selected randomly. A total sample of 20 respondents comprised 10 shopkeepers and 10 street vendors were selected for the study. The primary data was collected through a detailed interview schedule using three separate schedules each for shopkeepers, supermarket managers and customers during the year 2016-17. Probit model was used to examine various factors that influence consumer to visit the supermarkets. Average and percentages were used to draw logical inferences.

### RESULTS AND DISCUSSION

*Impact of supermarkets on traditional retailers:* Although some studies (Narayanan and Gulati 2002,

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Ramaswami *et al.* 2004, Birthal *et al.* 2005, Sulaiman *et al.* 2010) asserted that most of the foodgrain supermarkets work with primary producers that ultimately benefit the farmers due to lower transaction cost and higher profits but now the situation is entirely different because most of the supermarkets have their own collection centre. Unlike some studies, in this study, the supermarkets work with primary producers through contact (not contract) farming.

*Impact on sale volume and net returns:* Before the commencement of supermarkets in the vicinity of retailers, nearly half of the small retailers were having a sales volume of ₹2.0–2.5 lakh, but after the commencement of supermarkets 40% of the retailers are having the sales volume of ₹1.5–2.0 lakh per month (Table 1). It envisages that majority of the small retailers were having a reduced sales volume of at least ₹50000 per month. It was observed during the study period that only 25% retailers have monthly sales volume of ₹2.0–2.5 lakh after the introduction of supermarkets in Ludhiana. However, there was no change in the sale volume of retailers who fall in the range of less than ₹.1 lakh. The sales above the bracket of ₹2.50 lakh also decreased from 15–10%. It is clear that traditional retailers were experiencing a reduced sales volume.

Moreover, few respondents who has monthly sale above ₹2.50 lakh after the commencement of supermarkets, reported some new sales promotions initiatives, perhaps these are the prime reasons of still in between the sale category of above ₹2.50 lakh. Tele orders, home delivery, cashless transactions were types of new market initiatives which are taken up in the era of liberalization. This shows that commencement of supermarkets has made a negative impact on the traditional retailers. The reduction of sales volume ultimately affects the net returns of a business

concern. An attempt was made to analyse the impact of supermarkets on the returns of small retailers (Table 1). The net returns were calculated by deducting the purchase cost of total produce from the total income received by the retailers after selling his produce in a month. It has observed that there is no change in the monthly returns of the retailers in the income bracket of ₹10000-20000 per month and above ₹30000 per month. The net returns of traditional retailers in the slab of ₹25001–30000 showed a sharp decline from 55 to 30%.

It seems that their returns reduced to ₹20001–25000 as the percentage of respondents increased from 15 to 40% in this category. It can be inferred that there is a sharp reduction in the income of the retailers after the commencement of supermarkets in their vicinity.

*Change in customer base of traditional retailers:* An attempt has been made to know the class of shoppers before and after the entry of supermarkets. The upper class have more inclination in favor of the supermarkets as the percentage of upper class customers of retail stores have declined from 55–10% after opening of the supermarkets. The proportion of footfall of middle class shoppers decreased from 35–25% while the percentage of lower class purchasers increased at the retail stores after opening up of supermarkets. Hence, it can be inferred that the percentage of upper class and middle class consumers was decreased after the formation of supermarkets. This may lead to deeper questions regarding the changing class composition and shifts in consumption pattern in the vicinity of supermarkets. This may also indicate the loss of real purchasing power among the classes in the vicinity of the supermarkets that used to patronize small retailers. Before the commencement of supermarkets, the daily visit of customers ranged between 76 to 100% for 25% of retailers, which declined to 15% after start of supermarkets. The analysis also shows that 30% of retailers reported that more than 100 customers visit their store daily, while after the opening of supermarket in their area it has reduced to 10% which indicate the fact that there is a clear sign of reduction of number of customers visiting the small retail entities.

*Impact on the employment:* The impact of supermarkets on the employment of workforce by small retailers revealed that as the volume of sale and number of customers decreased, the workers employed on these ventures also declined. The number of workers employed by the small retailers decreased after the commencement of supermarkets. During the study no shopkeeper was found employing more than 4 workers after the start of supermarkets. Due to supermarkets, majority of shopkeepers are employing only 1 to 2 persons. It was also observed during survey that the workers who work with these traditional stores were less educated or unskilled as compared to workers of supermarkets. This phenomenon makes the less educated or unskilled workers unemployed as pushes them toward reserve army of labour.

*Factors affecting the consumer visiting supermarkets:* Garrett ranking technique was used to evaluate the reasons

Table 1 Impact of supermarkets on sale volume and net returns of traditional retailers

Particular	Before	%	After	%
	No. of respondents		No. of respondents	
<i>Sale volume (₹/Month)</i>				
Less than 100000	2	10	2	10
100001-150000	2	10	3	15
150001-200000	4	20	8	40
200001-250000	9	45	5	25
Above 250000	3	15	2	10
Total	20	100	20	100
<i>Net returns (₹/month)</i>				
10000-15000	1	5	1	5
15001-20000	3	15	3	15
20001-25000	3	15	8	40
25001-30000	11	55	6	30
Above 30000	2	10	2	10
Total	20	100	20	100

Table 2 Preference of the consumers towards supermarkets

Description	Mean Score	Rank
Availability of all product under one roof	7.65	I
Freshness	7.13	III
Hygiene and good quality product	6.90	IV
Well packed	5.88	V
Discounts/Allowance/Freebies	5.45	VI
Ambience	4.71	VII
Nearness	4.62	VIII
Partially processed	4.30	IX
Good presentation and ease of selection	4.05	X
Time saving	4.00	XI
Better parking facility	3.29	XII
Membership	3.14	XIII
Convenience	3.02	XIV
Can use credit card for F&V	2.59	XV

of consumers to prefer the supermarkets. The results revealed that, among various preferences of the consumers visiting supermarkets, availability of all product under one roof was the major reason with top rank with 7.65 Garrett's score (Table 2). The sample farmers gave second rank to the freshness (7.56 Garrett's score) followed by, hygiene and good quality of products by the sample consumers having 6.90 Garrett's score and got the third rank. So, it can be summed up that the choice of customers to go to the supermarket stores instead of other neighborhood stores mainly happened due to some factors like availability of all product under one roof coupled with freshness, hygiene and comparatively low price.

Further, the study revealed that 55% of the customers felt annoyed over the issue of long queues at billing counter. There were 45% of the customers who wanted carry bags to be provided for free and about 33% of the customers complained about the less number of attendants with perception of high prices. Overall majority of the consumers were not fully satisfied from the services of supermarkets.

Probit model is used to examine various factors that influence consumer to visit the supermarkets. The standard normal cumulative distribution function, as specified below:

$$E(SM_{it}) = \Pr(SM_{it} = 1) = \Phi(x_{it}\gamma) \tag{I}$$

where SM is a dummy indicator denoting that represents consumer participated in purchasing the vegetables and fruits from supermarkets in period *t*. It takes the value '1' in case of visitor or '0' otherwise  $\Phi$ . is the standard normal cumulative distribution function  $\Phi$ , and  $\gamma$  is a vector of coefficients. In equation I, *x* is a vector of seven variables that account for that consumers characteristics and other aspects related to supermarkets.

The probit model infers that the coefficient of age has been found negatively significant, which reveals that the probability of visiting supermarkets will be less with

Table 3 Parameter estimates of factor affecting the consumer visiting supermarkets

Particular	Coefficients	SE	P-value
Age (years)	-0.09***	0.03	0.00
Education (years of schooling)	0.19***	0.07	0.00
Gender (1=female, 0 male)	0.87**	0.44	0.05
Income of consumers	2.65***	0.57	0.00
Family size (persons)	0.21***	0.12	0.08
Approachability (distance in km)	-0.18 <sup>NS</sup>	0.12	0.13
Parking space (1=availability, 0 otherwise)	0.30 <sup>NS</sup>	0.43	0.49
Constant	-1.17 <sup>NS</sup>	1.40	0.40
Log Likelihood Value =-23.39			
Pseudo R <sup>2</sup> =0.58			
LR chi-square= 64.12			
No. of observation = 80			

\*\*\*P<0.01, \*\*P<0.05, \*P<0.1

increase in age. In simple words, young consumer would love to visit supermarkets (Table 3). Besides this, highly significant coefficient of level of education showed that education increases the probability to purchase F&V from supermarkets instead of local shopkeepers/vendors.

As per the gender issue is concerned, the probability of visiting supermarkets as female increases the accessibility into supermarkets. Most of the consumers were credit constrained and hence, family income and the wealth status of consumers are important to visit the supermarkets. The implication of this result is that the visiting supermarket is less accessible to resource-poor consumers because of financial and resource constraints that hinder their ability to visit the supermarkets. Consumers with large family size are likely to have more capacity to try out new products in supermarkets. The family size is positively associated with visiting supermarkets because they might have more earning hands in the family. The probit estimates of approachability and parking space do not significantly influence the consumer to visit the markets.

In Punjab, the traditional F&V markets are affected by the setting up of organized retailing. The supermarkets had an adverse impact on the volume of sale, employment and net returns of fruits and vegetable retailers. To counter the adverse impacts of supermarkets on neighborhood F&V markets, the following suggestions can help to a great extent. Firstly, proactive government interventions in encouraging retail cooperative and developing sufficient infrastructure for unorganized sectors would help fruits and vegetable retailers for enhancing their efficiency and remain competitive. Secondly, fruits and vegetable retailers may form a cartel for making bulk purchases and such cartels alone can serve the purpose of modern logistic services. Thirdly, food is a life line of the society, and hence the small retailers associations are to be formed to create awareness among farmers, vendors and hawkers for supplying hygienically

prepared food, which should be provided at door-step to compete with supermarkets. It would, indeed, be sad for everyone to see traditional markets which till recently were thriving are fading away. Hence, the small retailers need to be encouraged and guided to modernize not only themselves but the entire marketplace as well.

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